

college AND UNIVERSITY business

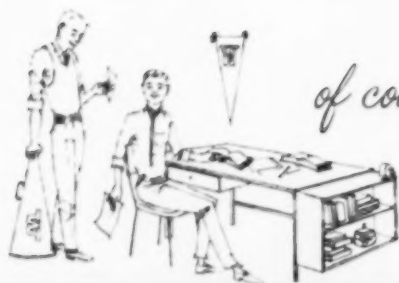
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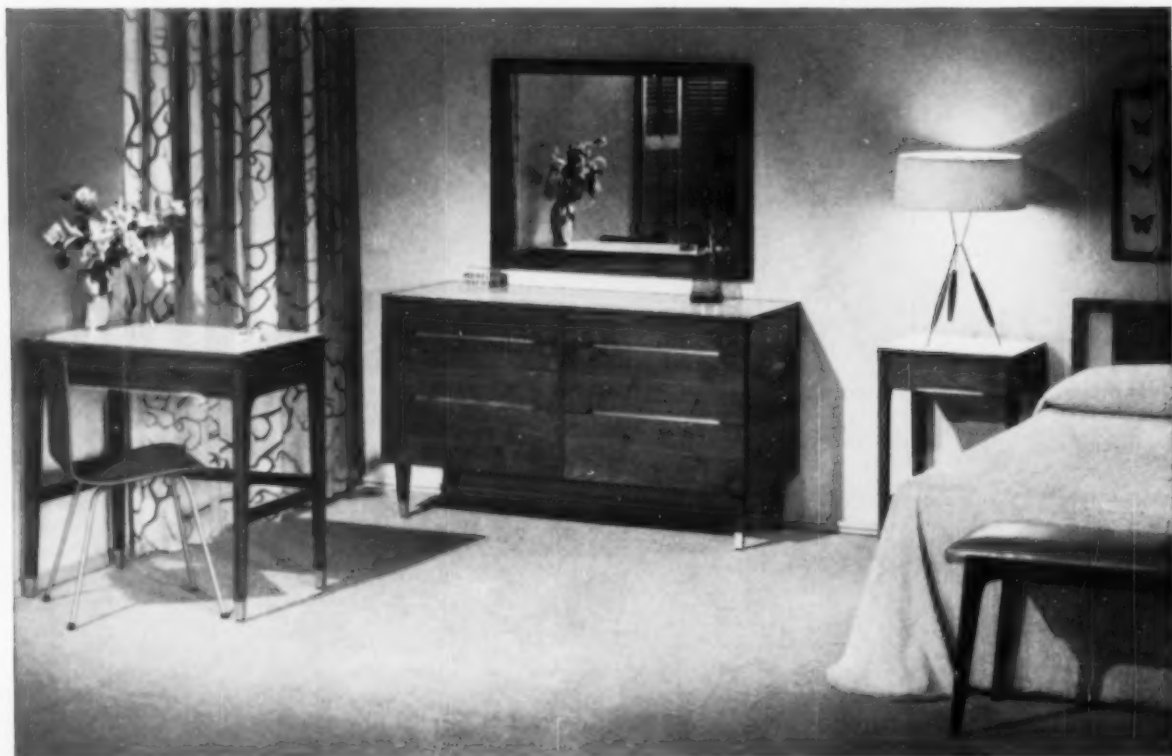


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AMONG THE AUTHORS: C. C. DeLong, bursar of the University of Illinois, recently visited India on an International Cooperation Administration assignment and reports some of his findings on page 47. Mr. DeLong has been very active in the Central Association of College & University Business Officers, having served as its secretary-treasurer and president. . . . Theodore W. Minah, director of dining halls, Duke University, has long been a serious research student of food service administration. On page 82, he reports on some of the developments that he feels will take place in the design and equipping of the institutional kitchen of the future. Mr. Minah is a graduate of Cornell University's school of hotel administration and served for five years as food service director of Brown University, Providence, R.I., before accepting his present appointment in 1945.



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QUESTIONS AND ANSWERS

Making Teaching Attractive

Question: Is there a trend toward making teaching a more desirable profession, from a financial standpoint? — S.G.F., Tex.

ANSWER: Colleges and universities are seeking to make teaching more attractive to well qualified scholars both by increasing the level of faculty salaries and by providing extensive fringe benefits. This is not an "either or" proposition, for well managed institutions are using both methods to attract and retain competent faculty members.

The success of the vigorous efforts being made to improve faculty salaries is attested in the series of annual reports published in recent years by the American Association of University Professors. Another study, recently released by Sidney Tickton of the Ford Foundation, based on data from large state universities, shows relatively large increases between 1953 and 1959 in the average salaries at each academic rank, both in dollar amounts and in the purchasing power of the salaries. In the three professorial ranks, however, the purchasing power of the average salaries in 1959 was still somewhat below the level reached in the period 1938-40.

Actual salaries are supplemented in most colleges and universities by a wide variety of fringe benefits. Among those most commonly provided are contributions to retirement funds, partial support of various kinds of personal insurance for the faculty member and his family such as group

life insurance, hospitalization (Blue Cross), and major medical expenses, the provision of rental housing, loans to assist faculty members in the purchase of homes, tuition discounts or remissions for faculty members and their dependents, and so forth. An important advantage of fringe benefits, in contrast with direct salary increases, is that the fringe benefit income usually is not subject to personal income tax.

An unpublished study, based on opinions expressed by faculty members in a large privately controlled university, seems to indicate that, in a situation in which faculty members already have fairly substantial fringe benefits, they are more interested in direct improvement of salaries than in the provision of additional fringe benefits. The administration of an institution can wisely seek the advice of the faculty members as to whether additional available income should be applied directly to salary increases or to extend the range and amount of fringe benefits provided. — JOHN DALE RUSSELL, director, office of institutional research, New York University.

Effective Annual Reports

Question: What can be done to make the annual reports of the president and/or the business manager more effective? — R. L., Ill.

ANSWER: Annual reports of college and university presidents and business managers can and should be more than a mere setting forth of facts and figures. Detailed financial statements or lengthy explanations of complex research activities have limited appeal.

The reports should be brief and written in language readily understood by those who are not academicians or accountants. They may include charts, graphs and pictures. Some color may be used to advance

(Continued on Page 6)

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 1050 Merchandise Mart, Chicago 54, Ill.



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Questions & Answers

(Continued From Page 4)

tage, but caution should be exercised to avoid a gaudy, picture-book effect.

Academic achievements and highlights of the year's operation might be included. Every effort should be made to relate finances to the educational program. In other words, how were the funds used to achieve objectives; what did the money buy — not in terms of dollars spent for salaries and other items, and not only in terms of an expense classification by function, but rather in terms of new developments in instruction or research, curricular changes, physical changes and programs that may be of interest to the general public.

A number of colleges and universities now publish two reports. One of these is a brief brochure designed primarily to provide interesting information to a large number of people. The second is the statistical report, which has a more limited circulation and which constitutes the historical financial record for the year. — RAYMOND KETTLER, controller, University of California.

University Administration

Question: Is the administration or operation of a university different from the operation of other institutions? — S. G., S.C.

ANSWER: "The college or university has in common with other groups of human beings four common characteristics: (1) It exists to accomplish something; it has a purpose or purposes. (2) It must have resources — men, money, materials. (3) It must have processes that facilitate men and women working together to accomplish a purpose. (4) The enterprise moves on — it grows or it retrogresses.

The college or university differs from other forces of enterprise in three significant respects: (1) Universities and colleges exist to serve a multiplicity of purposes (as contrasted to business). (2) The college is more dispersed as an enterprise than the typical business enterprise or governmental agency. (3) The responsibility for making decisions is more widely diffused than in a business organized." — JOHN J. CONSON — "Governance of Colleges and Universities," McGraw-Hill, 1960.

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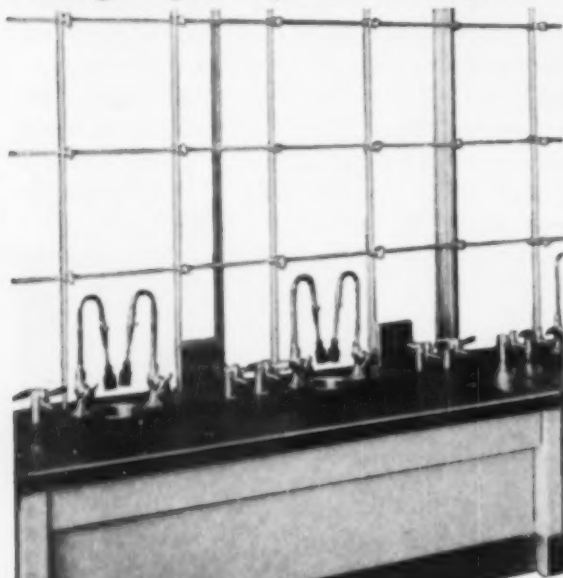
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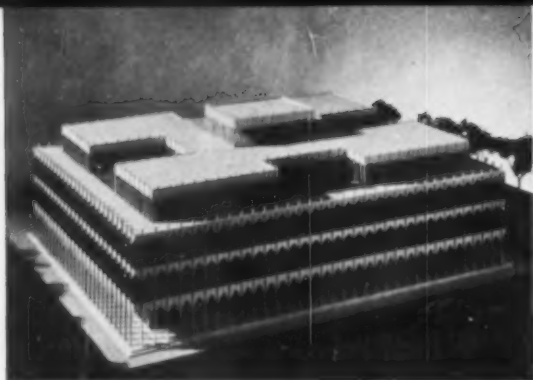
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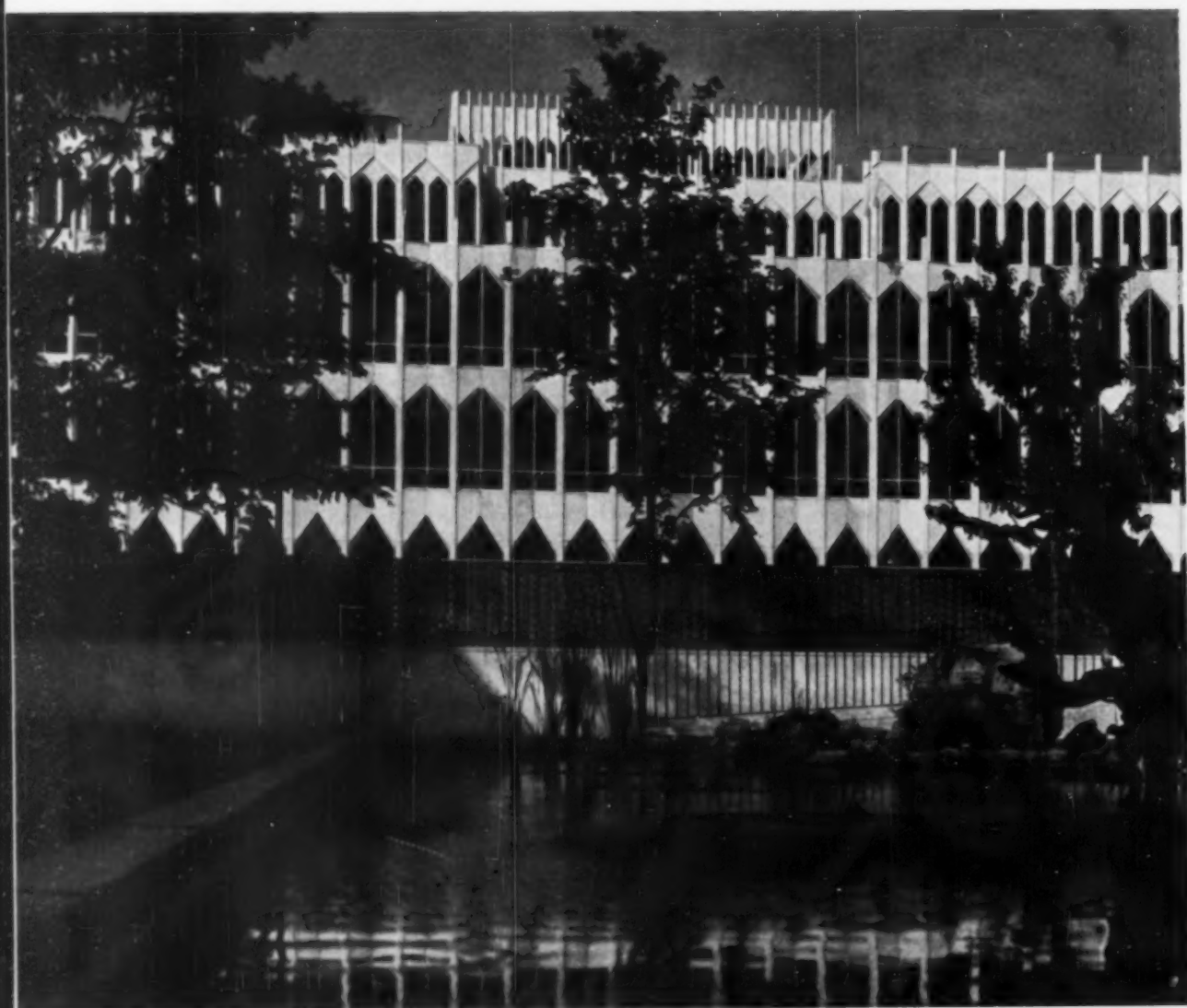


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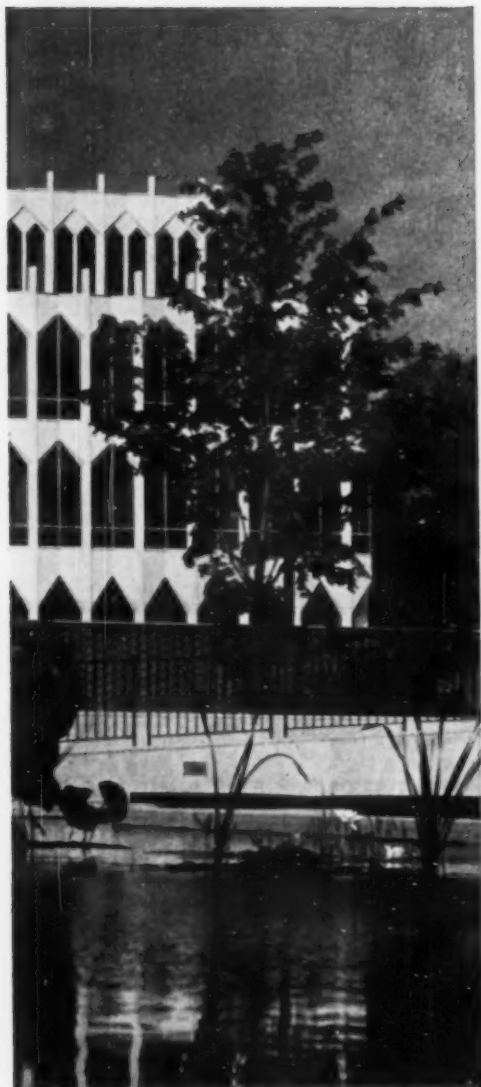


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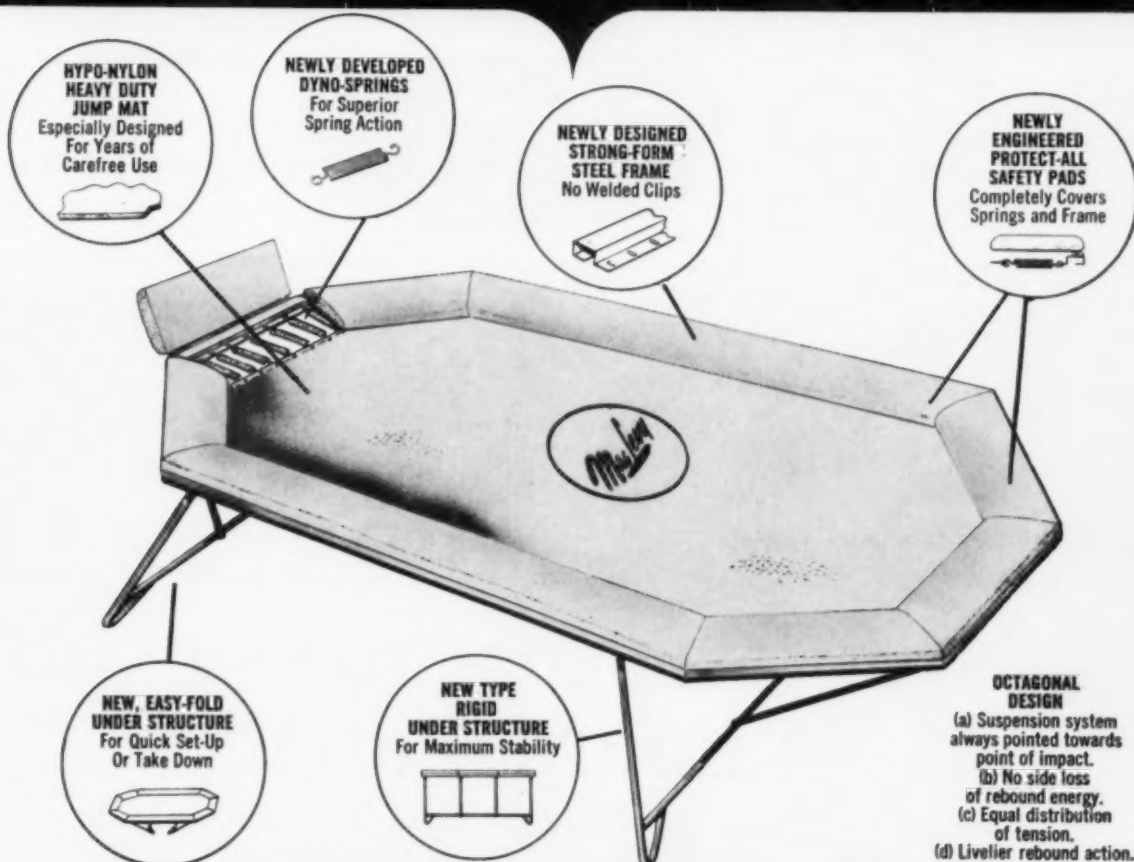
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Lasting Beauty*

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Hard's new Room Group for Dormitories is a rare combination of graceful design and rugged construction. Famous Hard Welded Metal Construction makes the combination possible — and at prices that make it a reality for your furnishing plans.



New 7540 Easy Chair features long-wearing foam cushions.

Shown Below:

6853 Desk—Top 21"x44"
1625 NS-4 Bed—36"x76"
2133 Nite Stand—Top 16"x16"
5543 Four-Drawer Chest—Top 19"x32"
7296 Side Chair
7540 Easy Chair

HARD HARD MANUFACTURING COMPANY, BUFFALO 7, NEW YORK



THESE FIGURES tell the STORY

...on underground
insulated
piping systems!!

TYPE OF SYSTEM	% OF NATIONAL PURCHASES IN 1960
AIR TESTABLE	93½%
FILL-TYPE	6½%

New ... Cost Report

This Insulation Efficiency
Cost Report shows how
a small efficiency loss
can cost you over
\$2,000.00 a month in
higher heating bills ...

Ninety-Three percent of the people responsible for specifying
underground distribution piping overwhelmingly
choose an air-testable system. These figures tell the story
and are based on actual orders placed. What's the answer!
... AN INSTALLED 15 LB. PRESSURE TEST.

It offers assurance of a tight, leak-proof system. In short ...
if air cannot escape ... surface water cannot get in ...

Write for illustrated catalog and if you do not have our new
cost report ... ask for a copy along with the catalog.



Ric-wil

Quality Piping Systems ...
... of Exceptionally High Thermal Efficiency

PREFABRICATED INSULATED PIPING SYSTEMS

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Because these Kys-Ite® Trays are guaranteed never to warp. Color compliments any meal and gay decorator designs cover both sides of Kys-Ite trays. Smooth, pressure-sealed edges mean Kys-Ite trays can't warp. And these light, bright, trays come in a complete selection of sizes, shapes, colors and designs, with or without cork surfaces.



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COMPLETE SELECTION

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TODAY

KEYES FIBRE COMPANY, Dept. CU,
Waterville, Maine

Please send me complete information on Kys-Ite®
Plastic serving trays.

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Name of Employer

Street

City Zone State



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When a problem of shortages, pilferage or theft arises in a school or college, the investigation must be conducted in a manner undamaging to the good name of the institution or the reputation of those checked on. Our satisfactory solution to many such cases over a long period of time qualifies us to offer help with full confidence in our ability to render service with discretion.

Many colleges and universities also rely on Pinkerton's to supply tactful control of social functions such as graduations, reunions, athletic events and dances.

Pinkerton's men are carefully trained and expertly supervised. We would welcome the opportunity to serve you. Write for our brochure "Security in Universities and Colleges."

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Prefabricated in modular units...



Installed quickly and easily



Light and cheerful inside, yet no glare... thanks to Thinlite

How Thinlite curtain wall increases comfort, reduces operating costs for campus buildings

Thinlite is the unique curtain wall system that offers many practical advantages for classrooms, laboratories, dormitories, field houses and other buildings on your campus:

- **Sun control.** Prismatic panels control harsh sunlight, and reduce solar heat more effectively than any other light-transmitting medium.

- **Weather control.** Double-glazed construction and weatherproof gasketing system assure draft-free, easy-to-heat interiors.

- **Low maintenance.** Glass tiles are self-cleaning. All colors are permanent. Metal is durable, anodized aluminum.

- **Distinctive appearance.** Your architect can provide a wide range of material and

color combinations within a standard system to give your campus functional walls with good looks.

Write to Kimble Glass Company, subsidiary of Owens-Illinois for the name of the Thinlite dealer-erector nearest you. He'll be glad to supply complete details including prices.

THINLITE CURTAIN WALL

AN  PRODUCT

OWENS-ILLINOIS

GENERAL OFFICES • TOLEDO 1, OHIO

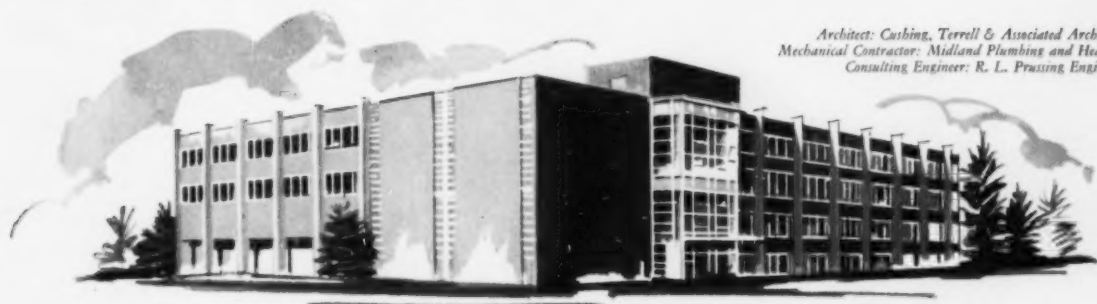
Mr. Martin F. Whalen, Superintendent of
Physical Plant, Montana State College,
Bozeman, Montana, says:

"Honeywell thermostats satisfy both the Mechanical



Mr. Whalen stands in one of the rooms of the new dormitory. Each room in this dorm has a Honeywell thermostat on the wall.

on the wall in each dormitory room Department and our students ”



*Architect: Cushing, Terrell & Associated Architects
Mechanical Contractor: Midland Plumbing and Heating
Consulting Engineer: R. L. Prussing Engineers*

**Individual room temperature control not only fills
the comfort needs of the occupant, but eases the work load
and budget for maintenance departments.**

"I am a firm believer in individual room temperature control for college dormitories," says Mr. Whalen. "My experience has shown that comfortable temperatures can be maintained only with an adjustable thermostat in every room. A thermostat should be adjustable so that the occupant can change the setting to suit his own comfort. We use Honeywell thermostats on the wall because we find them to be very accurate and precise.

"In buildings without individual adjustable room thermostats, our experiences have been that you're kept busy all day long answering calls to adjust temperatures. A tremendous heat loss also occurs, caused by students opening windows to reduce temperatures in their rooms, particularly at night. In our new girls' dorm, our adjustable Honeywell thermostats on the wall have eliminated all that. Our students are pleased and so are we."

Be sure to get Honeywell's recommendations for the best possible temperature control system for your dormitory. Honeywell makes all three types of control systems—pneumatic, electric and electronic. And you'll find Honeywell's

76 years of experience good protection for your investment. For further information call your nearest Honeywell office. Or write Minneapolis-Honeywell, Department CB-4-19, Minneapolis 8, Minnesota. In Canada, write Honeywell Controls, Limited, Toronto 17, Ontario.



John Berg of Montana State College's Maintenance Department checks the College's Honeywell Supervisory DataCenter.*

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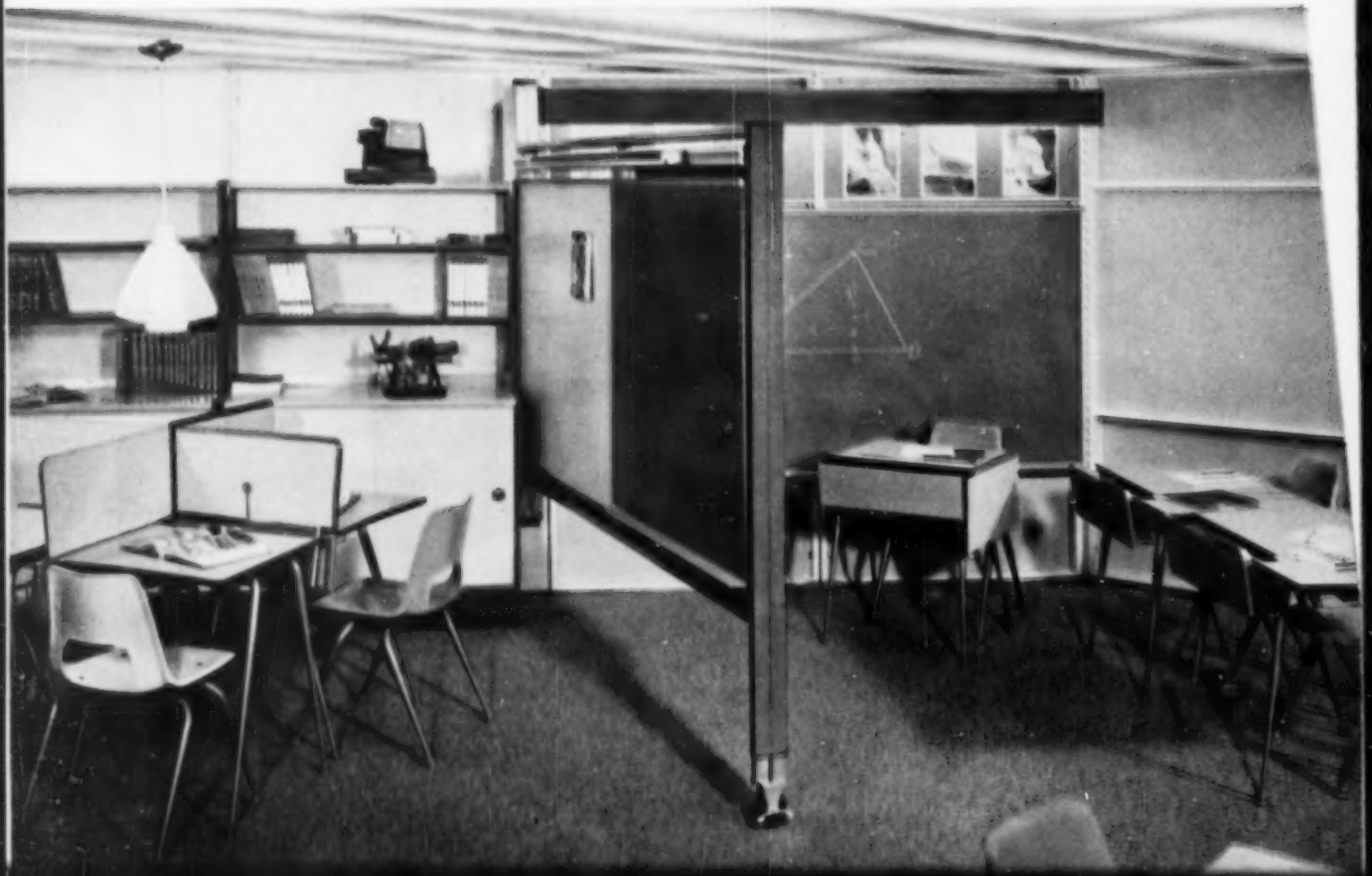
Honeywell



First in Control
SINCE 1885



*Shown: (above) new Brunswick Trizoid Desks spaced for rear-screen projection;
(below) same units arranged for individual study—small group demonstration.*





SCHOOL EQUIPMENT WITH THE CHANGE BUILT IN...

One teacher for all four R's (include *responsibility*) or a team of 'em . . . age or ability grouping—whatever the philosophy and practices of your teaching program, you can be sure of this: pupils, teachers, taxpayers—and you—benefit fully when you furnish with Brunswick. For *only* Brunswick School Equipment of Advanced Design is specifically designed to implement the diverse and changing classroom requirements of today *and* tomorrow.

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SCHOOL EQUIPMENT DIVISION
KALAMAZOO, MICHIGAN

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Architect: Mitchell & Ritchey
General Contractor: George H. Chilli
Glazing Contractor: Pittsburgh Plate Glass Company

GLASS... WINS HONORS IN SCHOOLS OLD and NEW

40,000 sq. ft. Smooth Rough MISCO Wire Glass glazed in skylights of Carnegie Institute and Library, Pittsburgh, Pa. Architect: Chas. M. & Edward Stutz, Pittsburgh, Pa. Skylight Contractor: Overly Manufacturing Co., Greensburg, Pa.

Architects favor extensive use of glass for school modernization or in new modern buildings. New construction like Donner Hall, men's dormitory at Carnegie Institute, employs Mississippi Coolite, Heat Absorbing, Glare Reduced glass to brighten rooms with daylight without the discomfort resulting from excess solar heat. Coolite complements interior and exterior appearance, makes rooms seem larger, more restful and cheerful.

In existing structures such as Carnegie Institute and Library, skylighting has been used to flood interiors with eye-easy daylight. In this impressive installation, translucent, light diffusing Smooth Rough MISCO Wire Glass provides shadowless, natural illumination, otherwise impossible with the building's existing vertical glazing.

When you build or remodel your schools, make modern daylighting part of your plans. Specify glass by Mississippi. Available in a wide range of patterns and surface finishes to meet every requirement and budget need.



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Better than harsh abrasive cleaners . . . better than the so-called neutral cleaners . . . better, in fact, than any cleaner you have ever used—on grimy equipment, on greasy walls, on dirt-embedded floors . . . on any washable surface.

We know because we have tested it against all the leading maintenance cleaners . . . because we have seen it with our own eyes . . . and because people who try it tell us so.

FACT: FORWARD ends power fade-out. FORWARD keeps on cleaning long after other cleaners are exhausted. **FACT:** FORWARD cleans the worst imaginable grease, grit and grime on any surface that's washable. **FACT:** FORWARD makes cleaning easier . . . not easy, but easier—saves you time . . . work . . . expense. Get FORWARD. Try it. See for yourself.

From **JOHNSON'S**  **WAX** Service Products Division . . . Products with the Big Difference. FORWARD—the Cleaner That Ends Power Fade-out. FORWARD is a registered trademark of S. C. Johnson & Son, Inc., Racine, Wis.

JUST 90 SECONDS
in the **fresh-o-matic** by wear-ever

- 1** Put in precooked hamburgers, top with cheese slices.
- 2** Put in presticked buns. Shut lid.
- 3** Press lever 2 or 3 times. Wait just 90 seconds, lift lid.



AND LOOK—

Buns Hot! 'Burgers Hot! The Cheese Bubbling Hot!

Just think! In just 90 seconds, you can hand your customer delicious food from your fast Fresh-O-Matic.

No matter what your specialty is—spectacular 'burgers with the cheese melted right in, oven-warm pies, piping hot barbecues or pizza pies, whatever—he simply never tasted it so good. No steam-table sogginess. No bun-warmer dryness. Fresh-O-Matic serves it *hot, fresh and fast!*

Think of the time you can save during hectic rush hours. Think of the money you can save on buns and rolls alone—because Fresh-O-Matic *revives* baked goods, puts back moisture and freshness.

Check These Other Foods and Times:

3-Minute Poached Eggs	80 seconds
Precooked Beef, Chicken or Turkey Slices	20 seconds
Cooked Shrimp	90 seconds
Precooked Bacon	60 seconds
Rolls, Buns	10-15 seconds

Fresh-O-Matic takes about one square foot of work space. Just add water, plug into any 110-volt outlet.

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CALL, WRITE OR WIRE for "proof of the pudding" Fresh-O-Matic demonstration

fresh-o-matic.

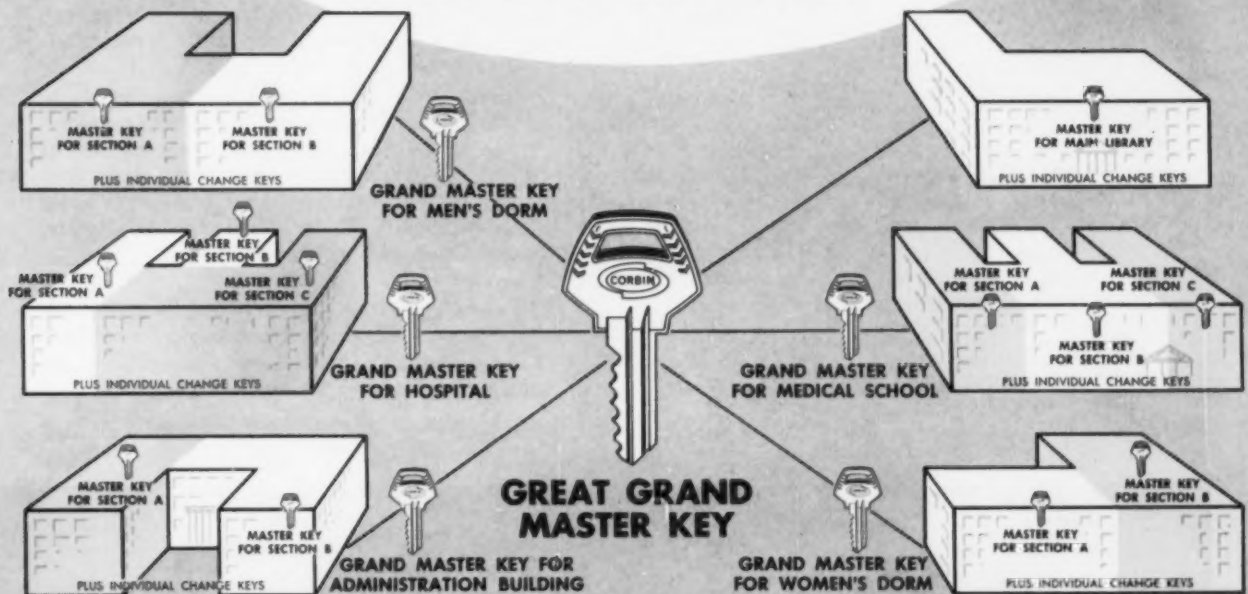
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most flexible!
most economical!



CHANGE KEYS... An individual key for each lock. Yet all keys are different—regardless of the number of locks on the campus.

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ONE GREAT GRAND MASTER KEY... For all locks... in all buildings on the campus.

That's CORBIN flexibility in modern masterkeying—an absolutely secure system, regardless of the number of locks and buildings on the campus! And it is made possible by the Master Ring Cylinder, an exclusive CORBIN feature that provides practically limitless masterkeying combinations, economical installations, positive control plus unmatched security. Write for booklet describing and illustrating all CORBIN Masterkey Systems, or contact the CORBIN Distributor in your area.



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CORBIN CONSTRUCTION MASTER KEY SYSTEM provides complete security and control during and after construction. Only the unique Construction Master Key operates the buildings' locksets during construction. Users' Regular Keys and Masterkeys are delivered after construction. Use of Regular Keys cancels all Construction Keys, without cylinder removal. There's security... economy, too!

TRIPLING a shower room's **CAPACITY** with emphasis on safety .

Imaginative engineering found a "better way of doing things" to solve the problem of overcrowded locker and shower room conditions at Niles Township East Community High School. Not only was locker space greatly increased and shower capacity tripled—the shower room itself was provided with major safety benefits, practically foolproof water temperature regulation and economy of operation.

The showers are the progressive type, used primarily for warming up or cooling down on entry or exit to pool or gym. Located in what was once unused space, they are arranged in three double tiers, one set at 95°, one at 100° and the other at 105° by means of three Powers Hydroguard Thermostatic Controls.

Showers are operated from a convenient panel to which only the instructor has access. Here,

through an "on" button, a timer actuates three valves connected to the Hydroguards to limit water flow to 10 minutes. The shower system can be shut off at any time by depressing an "off" button which automatically re-cycles the timer. In addition, individual switches for each tier provide manual operation when desired.

Core of the system is the Powers Hydroguards, set to the previously mentioned water temperatures. The Hydroguards protect the bathers at all times against temperature fluctuations that might cause scalding or other mishaps. Should either the hot or cold water supply fail, they immediately shut off the showers.

From an operational standpoint, four-year figures show that controlled timing and controlled temperature can lower a school's budget through water and fuel conservation.

*Niles Township East Community
High School*

*Architect: Edwin C. Bruno, A.I.A.,
Skokie, Ill.*

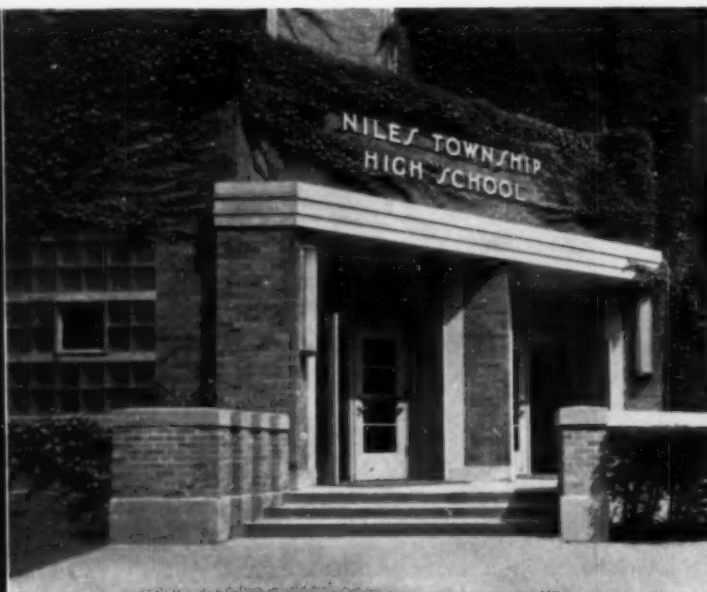
*Consulting Engineer: John S. Horner,
Libertyville, Ill.*

*Plumbing Contractor: Chas. Conrick Co.,
Chicago, Ill.*

Head Custodian: Jules P. Roels

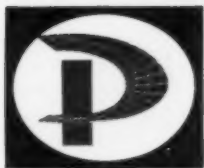
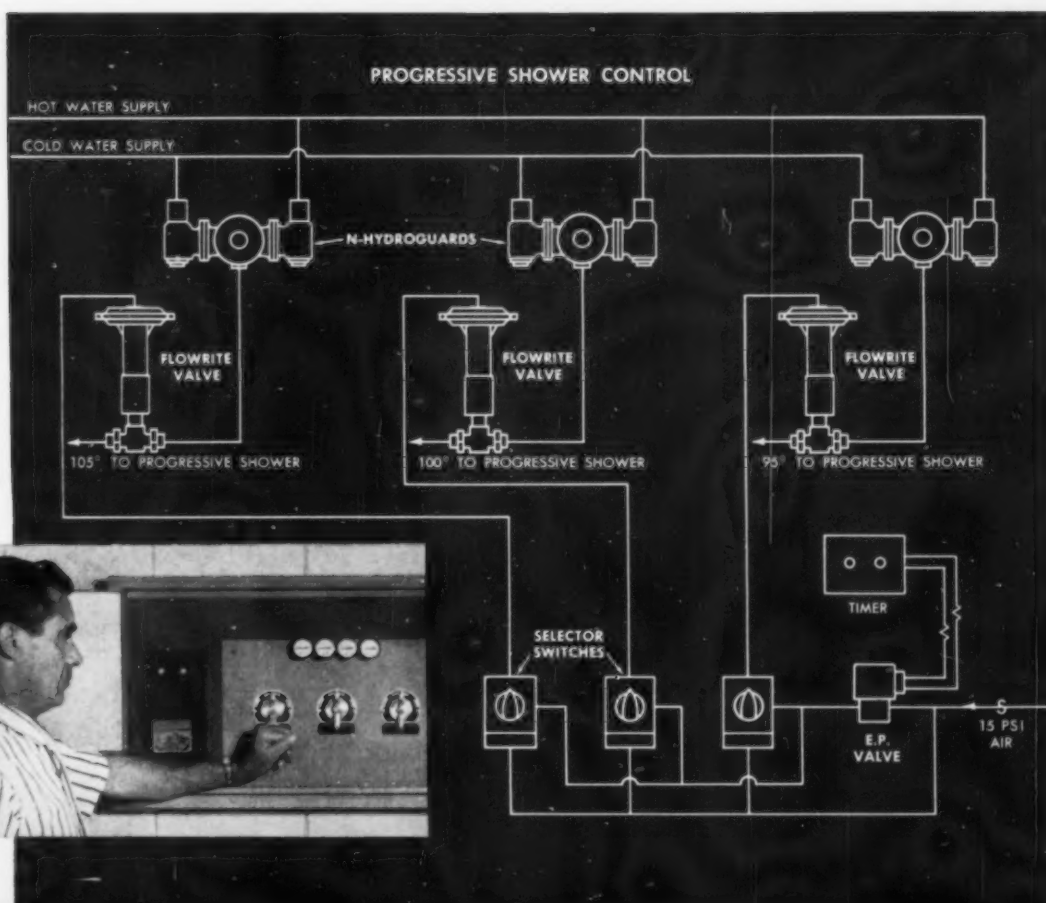
*Upper photo on facing page shows Jules P.
Roels at the operating panel.*

*In lower photo, John S. Horner and Edwin C.
Bruno stand at pool end of shower.*



Why not investigate a Hydroguard Shower System for your school? Just tell us about your requirements and we'll make recommendations with no obligations attached. For general information request *Safer Showers Bulletin*.

Also: **POWERS TEMPERATURE AND HUMIDITY CONTROLS.** Ask for case histories illustrating how Powers equipment has been engineered to individual needs to spark new ideas in indoor comfort and environment.



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to COST-FREE campus
transportation!

CUSHMAN TRUCKSTERS®



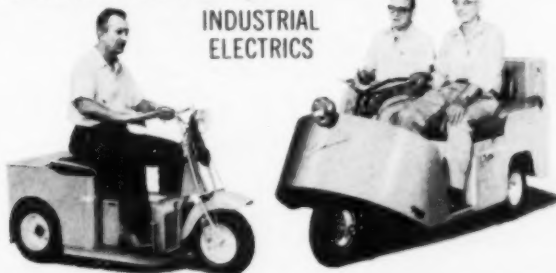
The GASOLINE TRUCKSTER



The ELECTRIC TRUCKSTER

The One and Two Passenger

INDUSTRIAL
ELECTRICS



Cushman gasoline and electric vehicles are the ideal answer to campus transportation needs because they were designed with many of those needs specifically in mind.

Cushman vehicles are VERSATILE—can be used to deliver mail; by the campus police; for the movement of supplies; for grounds work; by the various maintenance shops; and for scores of other jobs. They're COMPACT—can operate on campus sidewalks—even inside the buildings—as well as on the streets. Most important, they're EXTREMELY ECONOMIC. You save on initial investment, operating and maintenance costs, and insurance.

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Handles up to 800 pound payload at an operating cost of about a penny a mile or less. Now with choice of two all-new, die-cast aluminum engines: Two cylinder, rated at 18 HP; single cylinder, rated at 9 HP.

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Handles up to half-ton payload; travels up to 50 miles on a charge. Can be equipped as personnel carrier to carry five people plus cargo.

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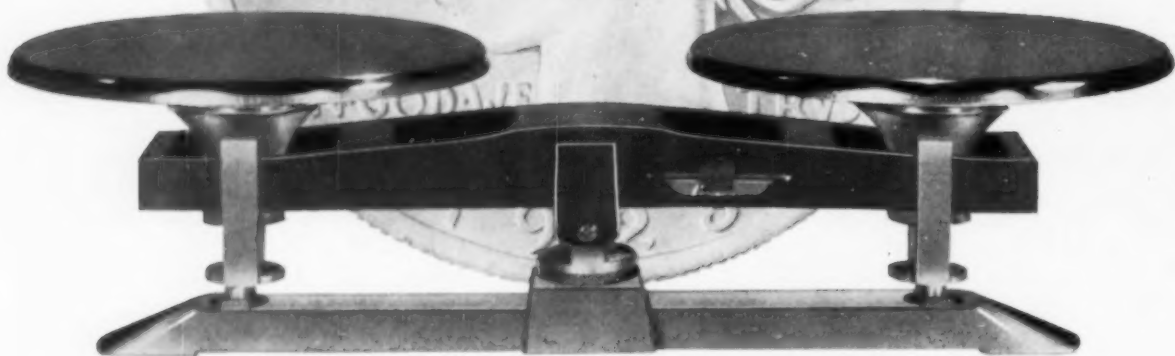
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DuBois delivers, in perfect proportion . . . the world's finest cleaners balanced with continuing service. The result: Concentrated cleaning at low cost plus . . . on-the-job technical assistance—both, from DuBois.

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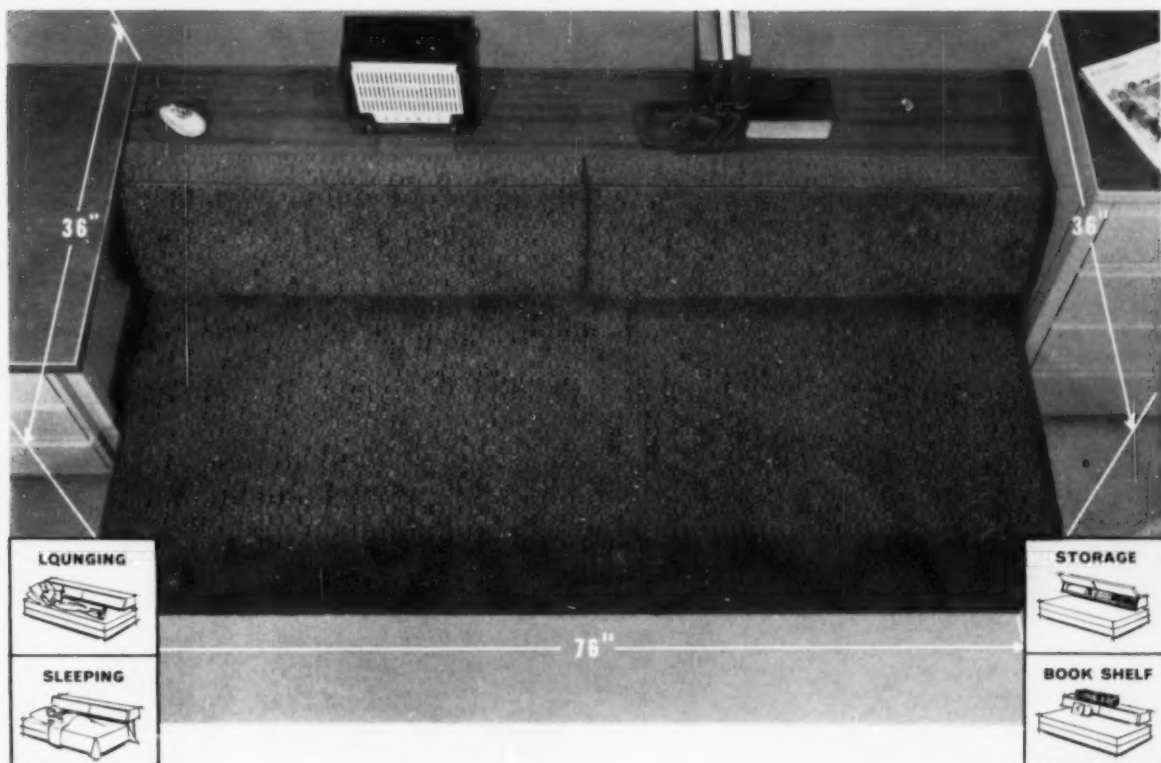


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Machine and hand dishwashing compounds . . . rinse additives . . . packaging and dispensing devices, to control cost . . . floor cleaners and polishes . . . all-purpose cleaners and cleansers for every surface and for problem areas . . . specialized compounds and germicides for sanitized cleaning where hygiene is paramount.

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The *Multi-Purpose Bed Lounger CONQUERS SPACE AT SMALL COST!



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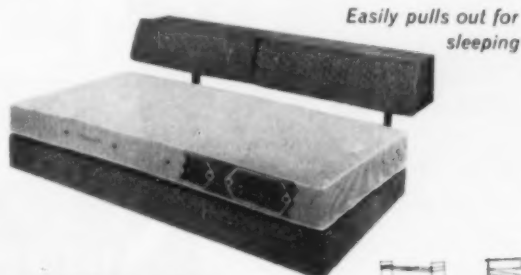


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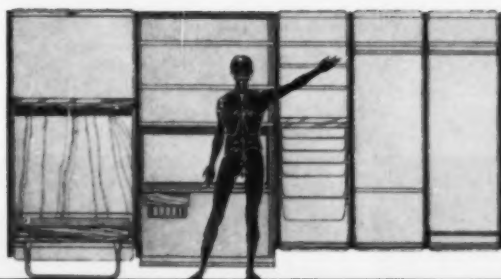
Every Southern installation is the result of complete cooperation with Architect, Consultant, Owner and "Custom-built by Southern" Distributor. All contribute to the effectiveness of an efficient, smooth running food service installation.

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 THAT OPENS THE DOOR....
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 THAT FORMS THE DORM....
 THAT HOUSES THE STUDENTS....
 THAT USE THE SYSTEM*
 THAT HAS THE DOOR....
 THAT TAKES THE HANDLE....

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dorms with a **PHD** PRACTICAL HANDSOME DESIGN

Dorm Line furniture by Simmons is especially designed to graduate with honors from the school of hard knocks, of which exuberant students are the masters. Comfortable Dorm Line provides a pleasant "at-home" atmosphere, too. It's smart, versatile, space-saving. Requires a minimum of maintenance care.

Dorm Line wardrobes, chests, desks, even beds can be built in, thereby qualifying for long-term government financing.

For dorms with a PHD, equip with Dorm Line furniture by Simmons. Dorm Line rooms are easy to plan, easy to finance.



SIMMONS COMPANY
CONTRACT DIVISION

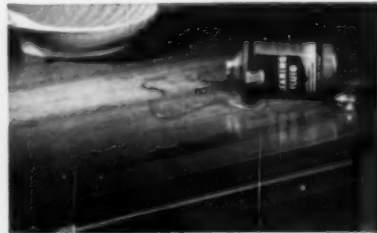
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DISPLAY ROOMS: Chicago • New York • Atlanta •
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Dorm Line chairs take abuse—even spike-heeled shoes won't harm the tough Naugahyde upholstery. Welded steel frames withstand rough treatment.



Fibersin desk and table tops easily pass the "cigarette burn" test. All Dorm Line units, with steel and Fibersin construction, reduce fire hazards.



No marring or damage from spilled liquids or chemicals—such as cleaning fluid or nail polish remover. Simmons Dorm Line keeps its new look for years!

School construction costs demand savings with color, design and fire safety

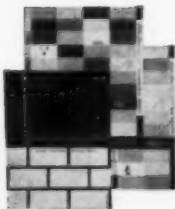


Spectra-Glaze *

Glazed concrete masonry walls

Reduce First Costs and Maintenance

Discuss with your architect these three facts concerning cost of glazed concrete blocks for beauty and child-proof durability in corridors, cafeterias, kitchens, gymnasiums, shower rooms, etc.



- (1) 25% in-wall savings below other glazed masonry of comparable durability and appearance.
- (2) ½ in-wall cost of pre-fab panels of equal quality.
- (3) 50% of total school costs is applied to mechanical services which can be greatly reduced by using bond beam and vertical-core block walls

@ less than \$2.00 sq. ft. instead of other partition construction.

SPECTRA-GLAZE block is available in 44 colors with an overlapping edge of glaze, reducing exposed mortar joints to ¼". There is no fading and maintenance is reduced to a minimum. The face will not absorb stains and cleaning amounts to the wipe of a damp cloth.

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80%

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See SPECTRA-GLAZE at the Philadelphia SCHOOL BOARD SHOW, May 4-6, BOOTH 160

Manufactured in 27 cities and distributed throughout the U.S., Canada and England.



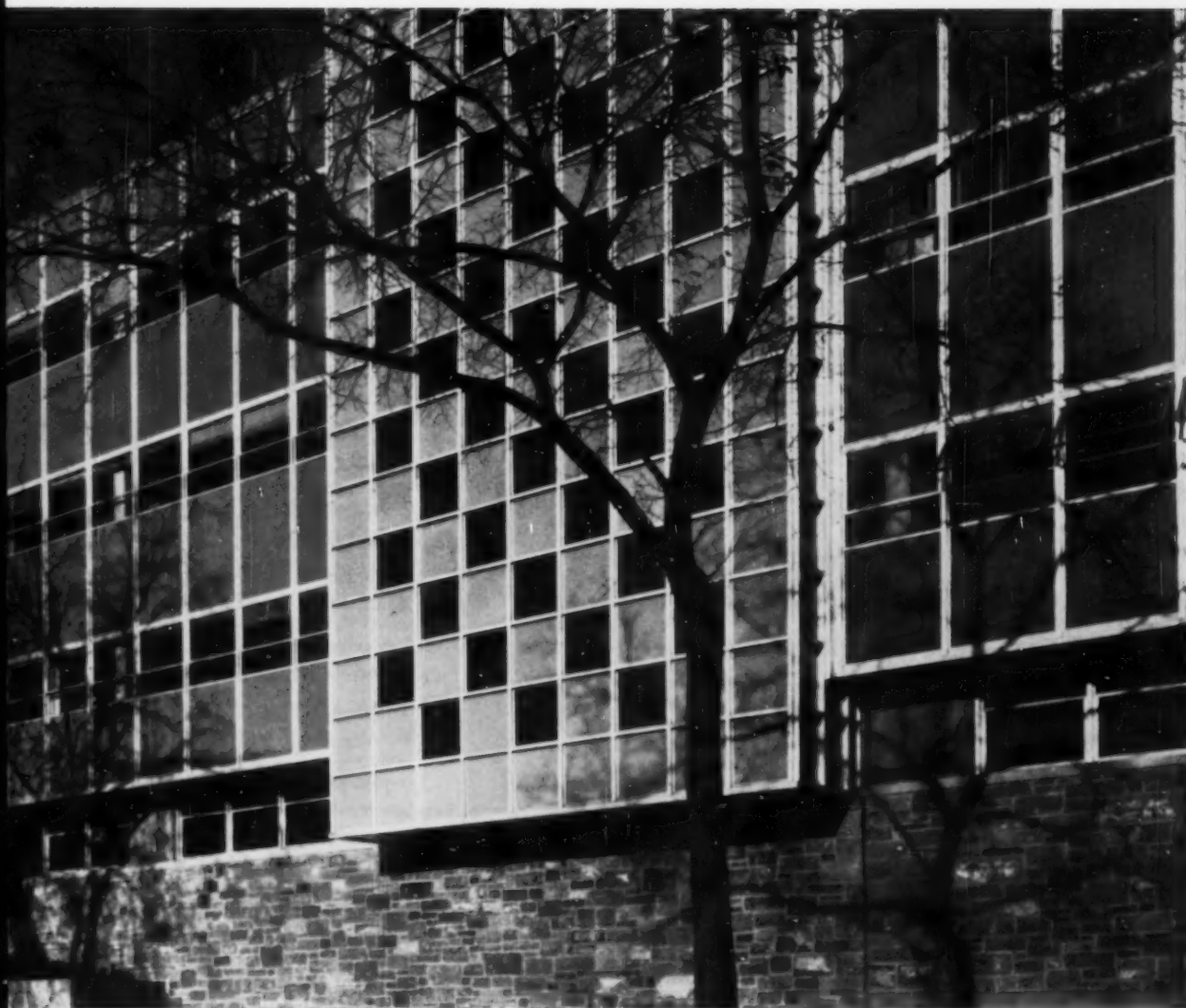
A LUPTON aluminum curtain wall gives a modern, airy facade to Penn State's new engineering building

This dynamic facade of the new Hammond Engineering Building at Pennsylvania State University proves that curtain-wall design can be free and individual. Working with standard LUPTON components, architects created a building of personality, purpose, and warm simplicity.

Of course, aluminum gives strength without excess mass to curtain-wall construction. But aluminum curtain wall by LUPTON gives the extra ingredient of dependability.

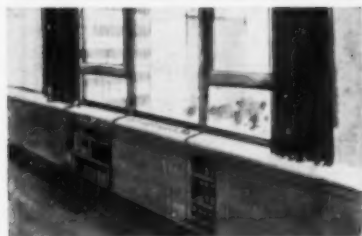
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To look deeper into LUPTON advantages, see Sweet's (Sections 3 and 17) for the LUPTON Curtain Wall and Window catalogs. Then talk with your local LUPTON man, or write us for details.



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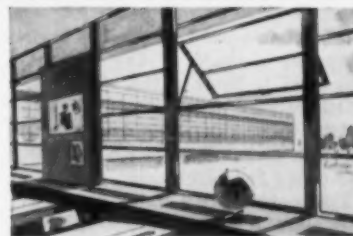


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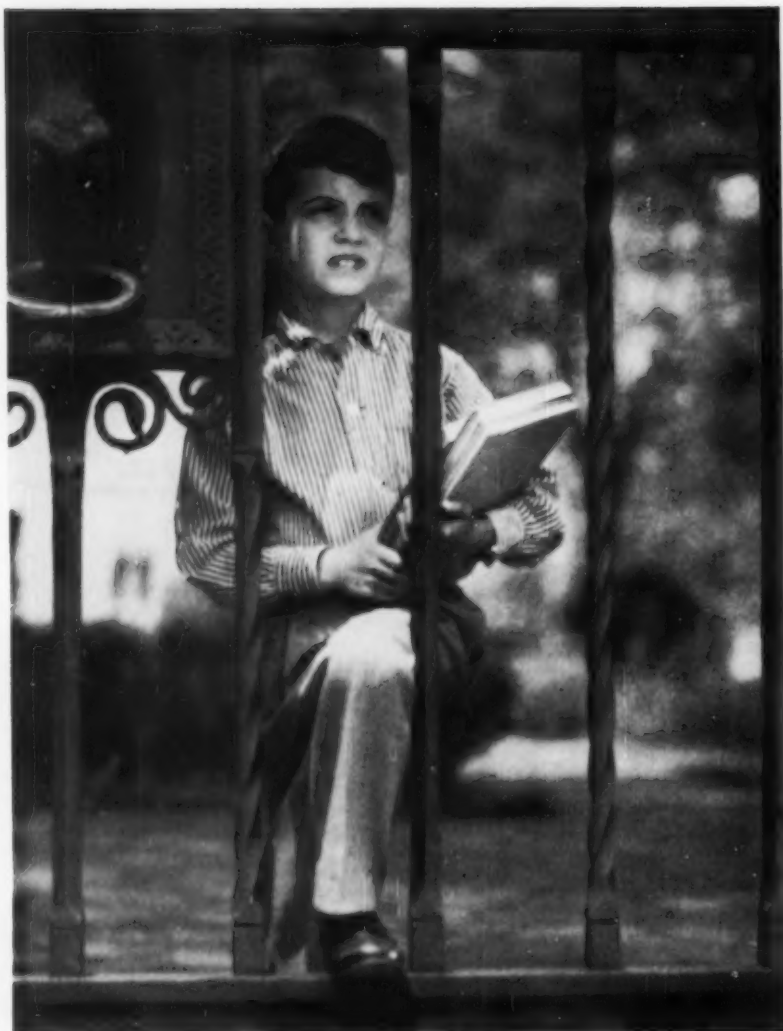


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Springfield College
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Hancock, Mich.

University of Vermont
Burlington, Vt.

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The College President and the Campus Newspaper

Buell G. Gallagher

President, City College of New York



A RESPONSIBLE undergraduate press can be the conscience of the college community, but moral responsibility must rest in freedom. Censorship of news policy or editorial opinion is inadmissible because it destroys a fundamental tool of the democratic education process: freedom of discussion and debate.

During my tenure as president of the City College of New York, I have jealously safeguarded the heritage of press freedom on our campus. I shall continue to fight for the right of our undergraduate journalists to say what they think and feel, especially when I disagree with what they have to say.

But every right has its responsibility; every privilege its obligation. The right to free expression carries the moral responsibility of reporting facts accurately, of giving adequate news space to points of view divergent from the paper's own editorial policy, of adhering to accepted standards of decency.

College newspaper editors should have the privilege of deciding what will and what will not be published. I, for one, would not have it any other way. However, the privilege carries with it the obligation on the part of student editors to subject themselves and their publications to the continuing critical scrutiny of the college community. They must recognize the rights of others to criticize the undergraduate press. Freedom of the press and freedom to criticize the press are symbiotic.

Except where questions of indecency and offense to public morals, or of legal redress, for possible libel action are involved, the only means that should be invoked to raise the standards of college journalism are the legitimate educational processes of suggestion, criticism and praise. Undergraduate editors must learn to draw a distinction between legitimate criticism and efforts to suppress editorial freedom through censorship. Achieving this type of perspective is one of the marks of journalistic maturity.

A college president faces grave problems in dealing with the undergraduate press. Practically every year he is faced with new editors and reporters, some of whom have not yet learned that press freedom carries

a price tag of moral responsibility. He is faced with the possible consequences of adverse outside publicity resulting from editorial irresponsibility. He is called upon to serve occasionally as arbitrator between the newspaper editors and other segments of the college community that may feel unfairly treated by the campus press. Finally, he may be faced with the prospect of seeing a campus publication "captured" by a small organized minority — sometimes a group whose allegiances are to a particular political doctrine rather than to the principles of objective journalism.

These are real and delicate problems. They cannot and should not be settled by administrative fiat. Frequently, and understandably, student editors are unwilling to submit material to faculty scrutiny before publication; and I am, of course, in agreement with those resisting censorship.

However, I find myself in sharp disagreement with those educators who, in the interest of avoiding controversy with the student press, refuse to make use of the educational tools of criticism and suggestion. The college president who refuses to speak out frankly when a campus publication has shown itself to be irresponsible or in error is shirking his duty. By his refusal he is encouraging the undergraduate editor to repeat his errors.

The fight for integrity on the campus includes a fight for the right of each person — a student, a teacher, or a college president — to "think otherwise" and say so, enjoying criticism from his colleagues who have the right to differ in opinion. It carries with it the right not to be intimidated, misinterpreted, misled or misrepresented by those undergraduate editors who exercise the power of the printed word without responsibility.

At City College, I intend to continue to carry the fight for the right of all members of the college community to speak their own minds in criticism or praise clearly, without fear, favor, censorship or reprisal, and with readiness to take the criticism of others without resorting to hysteria or indulging in falsehood and smear.

LOOKING FORWARD

Annual Reports

IN A few months college presidents and business managers will be working on fiscal annual reports. It is about time that an improvement was made in the vast majority of reports in regard to their format, attractiveness, clarity and interpretive function.

Corporation executives have discovered that a carefully planned annual report is a valuable merchandising device as well as an interpretive tool. Investors can be attracted to a company that reports its fiscal health in effective fashion in an attractively printed report.

Some university administrators long ago decided that if the world was going to beat a path to their institutions' doors they had better tell the world about the university. What better vehicle than the annual report?

Donors are more likely to become interested in an institution that gives some evidence of being in good fiscal health or is making a significant contribution to society. Legislators and taxpayers like to know where the money went — a good report helps them find the answers.

The long detailed financial report incorporating a vast number of pages of financial and statistical data fails in fulfilling the interpretive function of a report. It is an historical record, but an indigestible one.

What is needed is imagination in analyzing fiscal data and interpreting them in graphic fashion so that the reader gets the message. A report not read has no merit as far as interpreting the objectives and performance of the institution involved.

Modern techniques of layout, advertising, graphics and photography can do much to improve the present status of annual reporting. In this connection Prof. J. Harold Janis of New York University has stated that annual reports raise important questions about their philosophy and preparation. For example:

"1. What should be the institution's attitude toward public issues affecting the corporation (university)?

"2. How can you popularize the report without diluting or distorting the hard facts?

"3. How do you reconcile the interests of the various readers in the same report (faculty, donor, taxpayer, alumni, general public)?

"4. How lush can a report be before the art becomes irrelevant and readers claim a waste of money?

"5. What should an administrator know about editing the annual report?"

These are pertinent questions and require careful analysis to arrive at adequate answers. If they are ignored, the annual reports may create more problems than solu-

tions. The dividends in improved public relations, however, far outweigh the problems of production and editing in the development of an annual report that serves an interpretive function.

The New Frontier

THE present climate in Washington must be very comfortable for those who like to spend money. At this writing it appears likely that higher education may become a beneficiary of Uncle Sam's cornucopia. The old-fashioned virtues of thrift and economy seem to have gone out of style, with the result that self-interest dictates quick action to avoid being left behind.

President Kennedy has submitted to Congress an aid-to-education proposal for \$5.6 billion which would provide federal aid from elementary school through college. Of particular interest to college and university administrators was a request for \$577,525,000 over five years for 212,500 college scholarships to be awarded by states on a basis of students' ability and financial need.

Other phases of the President's program included an expansion of the College Housing Loan program to provide \$1.2 billion in housing loans in the next five years, and the creation of a new loan program of \$1.5 billion to cover the next five years for purposes of aiding the construction of college academic facilities such as classrooms, laboratories and libraries.

There is no doubt of the great need for college and university facilities, though there may be some who object getting in debt to Uncle Sam in order to have them. Federally financed construction on the college campus represents only one-fourth of the new college building program. Most of the new construction on campus is paid for before it is built. Somehow, up to this time, colleges and universities have managed to become great on their own leadership and initiative and not because of largesse dispensed by Washington.

It is interesting to note how the availability of federal money has an eroding effect on the independence of private higher education. Ten years ago church related colleges and universities would not accept federal aid on any condition. Today these same institutions are rationalizing a policy position which in the public interest justifies their participation in federal aid programs.

Education has powerful friends and a vigorous lobby in Washington. This might be a vintage year for education with a big federal harvest of goodies. One consolation: Today's children will get their education; their children will pay the bill. Why worry?



The need for being well informed is imperative for effective administration of colleges and universities. Institution executives will discover that the research and publication activity of the U.S. Office of Education can provide business offices with reliable . . .

Tools for Management

Harvey Sherer

Administrative Assistant, Office of Vice President-Business Administration
University of Kentucky, Lexington

THE management of the fiscal affairs of a modern social enterprise such as a college or university is incredibly complex. Today, one person cannot possibly know all — in all the fields of activity, in all the various aspects of management. This means, of course, that every college business manager reads a large amount of material, or else has someone do it for him. In every modern office somebody is scanning magazines and books like radar, ever alert for ideas, for suggestions, for ways of doing a better job.

Along with COLLEGE AND UNIVERSITY BUSINESS and "College and Uni-

versity Business Administration, Volume I," there is a major source of information that is devoted directly to the fiscal management of higher education. This source publishes a great deal of material with which we should all be familiar. I refer to the Office of Education.

The Office of Education has been publishing statistical data in regard to colleges and universities since 1871. It has made a steady improvement in the coverage and accuracy of its data, as has its clientele. The U. S. Office is continually studying methods of making data available at the time they are most desired. Each

business officer should have some or all of these circulars and bulletins at hand.

An example is the annual Higher Education Planning and Management Data Circular. The chief of the Business Administration Section of Higher Education tries to get this circular out in time for use in budget preparation. It reports salaries, tuition and fees, room and board charges, and it covers more than 90 per cent of the enrollment in public institutions and more than 80 per cent of the enrollment in private institutions. This is good solid material. The data are both accurate and pertinent.

Every business manager should be familiar with the College and University Facilities Survey, which Dr. Ernest V. Hollis is directing. Two of the five reports planned have been issued as this article is written (October 1960). "Part I: Cost and Planning of College and University Buildings, 1951-55" by W. Robert Bokelman and John B. Rork was issued as Circular No. 540, in 1959. "Part II: Planning for College and University Physical Plant Expansion, 1956-70" by W. Robert Bokelman and John B. Rork was published as Circular No. 603 in 1960. "Part III: Inventory of College and University Physical Facilities" by Louis A. D'Amico and E. Eugene Higgins was issued as a preliminary report in the fall of 1959. "Part IV: Building Needs of Colleges and Universities" and "Part V: New Colleges and Universities Planned" will follow.

To turn to another area, which is not quite business management but which is closely allied to it, the Office has recently published "Administration of Higher Education, an Annotated Bibliography" as Bulletin 1960, No. 7. On this bibliography Walter Crosby Eells collaborated with Ernest V. Hollis. This joint product is splendid; it contains 2708 selected items and 410 pages of annotated sources of information. (I wish I had had this type of source tool 15 years ago!) The type is readable, something unusual in bibliographies. The only shortcomings are that it is limited to the years 1950 to 1959, and, of course, it is not concerned too greatly with business administration, as such. (It is my understanding that this is to be brought up to date in 1961. I hope the authors will expand it

retroactively, so as to include the classics: some of the works of Fred Kelly and of Earl Huddleson, or of Capen, Hughes, Klein, Morey, Stewart, and Horace Ford; or of Arnett, Fred Ayer, Brumbaugh, Julian Ashby Burrus, J. Harvey Cain, George Van Dyke, and John Christenson.)

A number of annual statistical reports are splendid sources of facts. An example is "Opening (Fall) Enrollment in Higher Education," which now comes in two circulars. One, limited to a degree-credit enrollment list of each institution, is a photo-offset reproduction of the basic I.B.M. listings. It has the advantage of coming early, the target date being December of each year.

This is followed later by "Opening (Fall) Enrollment in Higher Education, Analytic Report." Here we get the trends and the analyses, which are useful in planning.

The two preceding reports are primarily concerned with *total* enrollment and *first-time* enrollment. To analyze the enrollment further by type of enrollment, we may refer to "Resident, Extension and Other Enrollments in Institutions of Higher Education, First Term, 1957-58." This study is made biennially. The last one is Circular No. 593, published in 1959 and written by Hazel C. Poole and Mabel C. Rice. This circular comes out later and is more comprehensive. It can tell us a bit about our competitors — and about our own institutions!

Office To Be Commended

The U. S. Office is to be commended, first, for issuing the fall enrollment report in two parts, and, second, for listing the enrollment of *each* institution. (Now, if the Office would only report financial data the same way!)

Quite a number of years ago, the Office stopped publishing the financial data for each institution, publishing these data by states only. At the Washington level this may be informative, but at the local level it is merely obfuscating. Thus, the biennial financial reports are interesting as national historical statistics, but not too useful locally.

However, the analysis of these data, which is the work of Henry G. Badger, is of value. The latest report is Chapter 4, Section 11, Biennial

Survey of Education in the United States, 1954-56, and is titled "Statistics of Higher Education, 1955-56 — Receipts, Expenditures and Property." Henry G. Badger, Mabel C. Rice, Justin C. Lewis, and Emery M. Foster collaborated on this report. (Data for 1957-58 have been published in summary form in OE-52001 "Financial Statistics of Institutions of Higher Education, 1957-58.")

The patterns of receipts and expenditures as reported in the biennial reports can be used as general guides. These patterns usually do not change abruptly on a national level, except when something like a war occurs. "The Second Sixty College Study" reported the same thing on a fairly small basis.¹

Another useful report issued in photo-offset style is called "Faculty in Institutions of Higher Education." Here again we have institutional data reported, as well as state totals. Here I can find out how large a faculty my favorite university has, the one I compare *my* college to! And now this has been expanded into more analytical data in "Faculty and Other Professional Staff in Institutions of Higher Education." This last is larger and hence easier to read. It is a useful reference volume when budgets are being developed.

Another annual publication is important to our field: "The Education Directory, Part 3, Higher Education," edited by Theresa Birch Wilkins. This compact directory is accurate. It gives name, location, accreditation, chief officials, enrollment, control — a world of information in a highly condensed form. Its few tables and its report of changes interest me. The changes in control over the last few years are worth considering by thoughtful people.

It is interesting to compare this directory for 1959-60, printed late in 1959, with Lovejoy's College Guide,² another interesting source of information. This volume, called "Higher Education Directory," seems more accurate, particularly as to titles. Dr. Lovejoy is likely to be more colloquial. He does not mention his indebtedness to the U.S. Office of Edu-

¹The Sixty College Study—A Second Look—1957-58 by the National Federation of College and University Business Officers Association (1960) p. 7.

²Lovejoy, Clarence E.: Lovejoy's College Guide. New York: Simon and Schuster (1959).

cation directories, a debt that seems obvious to me.

The Office issues from time to time special one-time or occasional reports. Some of these are important. An example is "College and University Endowment Investments — a Survey as of June 30, 1959," by W. Robert Bokelman, J. Harvey Cain, and Ernest V. Hollis. The educational consultant on this job, Mr. Cain, made a similar study in 1940, which resulted in "Endowment Investments and Income, 1926-39," published in April 1940, as No. 18, Vol. IV, Series III of the Financial Advisory Services bulletins.

This is a valuable source of comparative data for those concerned with endowment. Among the many interesting tables here, one little item really has struck my fancy. Appendix C of this study, on pages 46, 47 and 48, gives the market value of endowment funds at the end of the 1957-58 fiscal year of the 200 colleges and universities included in the study. One college with a fund between \$14 million and \$15 million (at market value) had 77 students in 1957-58!

In 1951, the Office published Miscellaneous No. 14, "Residence and Migration of College Students, 1949-50" by Robert C. Story. While it would have been more informative if it had been institutional data, it is still a real source of information.² We need a repeat of this study as promised. How does our own institution compare?

Whether we like it or not, we are becoming more and more involved in financial aid to students. Two recent publications are important here. In 1958, the Office published "Financial Aid for College Students: Graduate" by Richard C. Mattingly, as Bulletin 1957, No. 17. It is an institutional report and analysis and, therefore, most useful. How does our own university compare?

Theresa Birch Wilkins is the author of "Financial Aid for College Students: Undergraduate," which the Office issued as Bulletin 1957, No. 18. By April 1958 it had been reprinted three times, so it's popular.

(Continued on Page 46)

²The American Association of College Registrars and Admissions Officers has tried its hand at this type of study. It was published in 1959, based on 1958 facts. But this is an article about the Office of Education's publications.

U.S. Office of Education Literature



ADMINISTRATION OF HIGHER EDUCATION AN ANNOTATED BIBLIOGRAPHY

Walter Crosby Eells & Ernest V. Hollis
Bulletin 1960, No. 7

\$1.50

THE CARNEGIE UNIT: ITS ORIGIN, STATUS AND TRENDS

Ellsworth Tompkins & Walter H. Gaumnitz
Bulletin 1954, No. 7, 1954

\$.25

COLLEGE & UNIVERSITY ENDOWMENT INVESTMENTS A SURVEY AS OF JUNE 30, 1958

W. Robert Bokelman, J. Harvey Cain & Ernest V. Hollis
Circular No. 579, 1959

\$.35

COLLEGE AND UNIVERSITY FACILITIES SURVEY PART I: COST AND FINANCING OF COLLEGE & UNIVERSITY BUILDINGS, 1951-55

W. Robert Bokelman & John B. Rork
Circular No. 540, 1959

\$.45

COLLEGE & UNIVERSITY FACILITIES SURVEY PART II: PLANNING FOR COLLEGE & UNIVERSITY PHYSICAL PLANT EXPANSION 1956-70

W. Robert Bokelman & John B. Rork
Circular No. 603, 1960

\$.70

COLLEGE & UNIVERSITY FACULTIES — RECENT PERSONNEL & INSTRUCTIONAL PRACTICES

Clarence B. Lindquist
Bulletin 1959, No. 27, 1959

\$.30

EARNED DEGREES CONFERRED BY EDUCATIONAL INSTITUTIONS 1957-58

Diane B. Gertler & Mable C. Rice
Circular No. 570, May 1959

\$1.50

EDUCATION DIRECTORY PART III — HIGHER EDUCATION

Theresa Birch Wilkins

\$.70

FACULTY & OTHER PROFESSIONAL STAFF IN INSTITUTIONS OF HIGHER EDUCATION FIRST TERM 1957-58

Wayne E. Tolliver & Hazel C. Poole
Circular No. 596, September 1959

\$.45

FACULTY IN INSTITUTIONS OF HIGHER EDUCATION, NOVEMBER 1955

M. Clemens Johnson & Leah W. Ramsay & Emery M. Foster
Circular No. 504, May 1959

\$.30

NOTE: Above data may be obtained by writing to: U. S. Government Printing Office, Washington, D. C.

It reports on institutional policy. The business manager ought to have it and pass it on! While he should know parts of this volume, every admissions director ought to have it with him at all times. It is being revised and brought up to date. Watch for it this year!

A moment ago we were talking about individual institutional data that are as vital to local operation as are the national trends. The annual report, "Earned Degrees Conferred by Higher Educational Institutions," gives some vital information, by institutions. The last full listing covers 1957-58. It is Circular No. 570, issued in 1959. Diane B. Gertler, Mabel Rice, and Dr. Herbert Conrad worked on it. The national data for 1958-59 have been published in OE-54010, "Advance Report - Survey of Earned Degrees Granted During the Year 1958-59," by Edith H. Huddleston. The analytical report for 1958-59 is under preparation.

Study on Faculties

"College and University Faculties - Recent Personnel and Instructional Practices" by Clarence B. Lindquist is a most important study in this day of supposed faculty "shortage." (There still seem to be plenty of English professors or history professors, but try to get a physicist!) This was Bulletin 1959, No. 27, published in 1959. (This pamphlet is mentioned for any college president or dean who may have strayed into this article - through error, of course! After all, he ought to have *something* for having read this far!)

"Programs Below the Bachelor's Degree Level in Institutions of Higher Education, 1953-54" by Alice Yeomans Scates (Bulletin 1955, No. 9) is a study initiated by William R. Wood. This bulletin reports that "more than half of the institutions offer some form of recognized educational program below the bachelor's degree level." Also, "39 per cent of the four-year colleges and universities and about 96 per cent of the two-year institutions offer such programs." Table 5, on page 21 of that pamphlet, was enlightening to me. What are these programs? Pressure is building up for these programs - "the number has doubled in the last 20 years" - and it affects budget planning and long-range planning.

"The Carnegie Unit: Its Origin, Status and Trend" (Bulletin 1954, No. 7) by Ellsworth Tompkins and Walter H. Gaumnitz is of real interest. The "Carnegie Unit" was a term used to describe the class hour in secondary education. Out of this came the "credit," the credit hour, and/or the student hour so widely used in higher education. This unit of measurement, the hour, has confused many persons. It is a measure of the student's *time*, nothing more. It is *not* a measure of the teacher's or professor's efforts at all, despite the fact that the student hour, or the credit hour, is often used for cost analysis! How can we get a useful measure of the university's cost by using a measure of *the client's, the student's, efforts*?

Whether a college or university is privately or publicly controlled, the business officer ought to be aware of what is happening in state legislatures all over the country. The Office prepares such a report every year. The latest is entitled "Survey of State Legislation Relating to Higher Education," July 1, 1958, to Dec. 31, 1959, by Ernest V. Hollis, William G. Land, and S. V. Martorana, Circular No. 618, 1960. The Office also has put out a preliminary mailing on the year 1960, and this reported on only a few legislatures, as only a few met.

From this last report I culled the following action by the Michigan legislature:

"*Student Loans* (Act 77) creates the Michigan Higher Education Assistance Authority consisting of 10 members representing specified university and college interests, to be appointed by the governor, with the superintendent of public instruction as chairman. The Authority is authorized to guarantee up to 80 per cent of loans incurred for educational expenses by Michigan residents who are students at private or public institutions of higher learning in the state or elsewhere. (H.B. 3)"

Notice what it seems to say: "guarantee up to 80 per cent of loans incurred for educational expenses by Michigan residents at private or public institutions of higher learning in the state or elsewhere."

What does "educational cost" include? Are "living away from home" costs "educational costs"?

I realize that our student loan losses are small, but what about our student accounts? Could this be a way to avoid poor collections? There are a lot of ideas and laws being passed that have tremendous implications for business managers, who simply *must* be aware of new methods of financing the institution.

In connection with the same line of thought - that of being alert to new sources of income - are our individual colleges taking full advantage of federal funds available? We must not dismiss this source too lightly, regardless of type of control or size of our institution. We ought to *know*! By reading "Federal Funds for Education 1956-57 and 1957-58," Bulletin 1959, No. 2, we may be surprised to find that our college is eligible for some funds.

Factual Report

Private colleges must always watch with a jaundiced eye the possible encroachment of state governments. State governments already are increasing educational red tape (and hence, costs) by encroaching on the prerogatives and responsibilities of state college and university boards of trustees. It might be well to study "State Boards Responsible for Higher Education," S. V. Martorana, and Ernest V. Hollis, Circular No. 619, 1960. This is a factual report. But each of us should be aware of the facts.

Finally, someone in the business office ought to read regularly that valuable school year monthly, "Higher Education," which is published September through May by the Office of Education. I sometimes skip some of the articles because they are not in my field of interest, *but I never miss the new publications list on the back page*. This is an excellent current continuing bibliography.

"Business," or finances, covers the entire gamut of activities in the college community. The business office gets interested in the strangest things! A small expenditure sent to the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., will bring in a tremendous amount of data. For example, the annual or biennial bulletins cost only \$5.35.

Can we afford to miss such a bargain in tools for planning? ■

INDIA

An Adventure in Education

C. C. DeLong

Bursar, University of Illinois, Urbana-Champaign

THE present-day university in India is based on the medieval European institution with an emphasis on the academic hierarchy, a type of organization that has often failed to meet modern needs and conditions. Accordingly, higher education has been under critical study in that subcontinent since its independence in 1947.

The University Education Commission (India) in 1950 reported: "There is great disparity between what our country requires and what our educational system affords. We produce a large number of arts and law graduates but not enough teachers, demonstrators, engineers, technicians, scientific researchers, and the like."

The system of organization and operation of Indian universities, under which virtually the sole measure of academic achievement and the basis of granting a degree is an examination (often given by an agency with which the student has no direct contact), minimizes the essential relationship between teacher and student. Adversely affected are the quantity and quality of research, and there has been little incentive in such an academic environment to carry on extension activities.

Although nominally autonomous, many institutions of higher education lack real independence. The accompanying domination by agencies of government or by nonteaching (but examining and degree granting) universities significantly influences the quality of higher education.

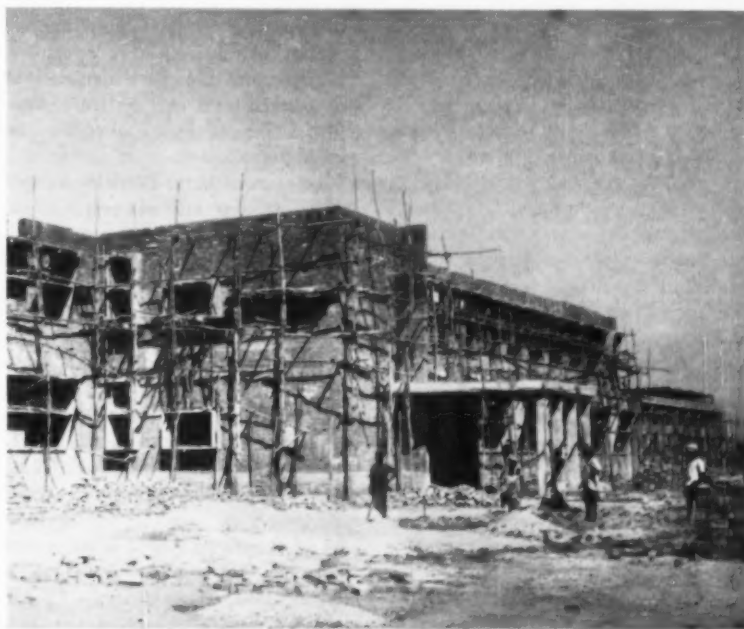
These factors, together with an overemphasis of political and some-

times personal motives on the part of many administrators, staff members, and public officials involved with education, are felt throughout the educational system from the primary to the graduate level. They have led many thoughtful statesmen and educators of India to the conviction that there is serious deterioration in educational standards.

In the past few years critical attention has been given to these problems.

The assistance of the government of the United States, of prominent American foundations, and of institutions of higher education has been sought, and such assistance has been readily given.

Agriculture is the basic industry of India, and yet agricultural production is so inefficient that foodstuffs must be imported. It is imperative to future India that this problem be solved. The present-day agricultural



Uttar Pradesh Agricultural University's Agriculture Building under construction. This picture was taken last April and classes started in the building in July, although it was far from complete. Note the bamboo scaffolding. Illustrated here are typical construction methods of educational units in India. This building, of brick construction, is now completed and is being used by the university for teaching the students of India in subjects ranging from agricultural engineering to veterinary medicine. Many students helped in the construction.



Students pictured above hoeing in a canefield in India. Note the tall grass and weeds. The field should have been plowed up.

college produces graduates who go almost entirely into government service, and the colleges are operated almost solely to serve this purpose. The result is that there is insufficient coordination of teaching, research and extension; nor is there enough emphasis on the two latter areas. Accordingly, in the past decade the urgent need for a new system of agricultural education has become increasingly apparent.

The state of Uttar Pradesh, located at the northern edge of central India, embraces one of the largest agricultural areas in the country. It was chosen as a site for a new experiment in agricultural education because of certain existing facilities there, and because of the willingness of the state legislature to cooperate with the government of India on such a project.

Perhaps the most important factor was the existence of the Tarai State Farm. The Tarai, which means "jungle swamp," runs along the foothills of the Himalaya Mountains and was covered in its natural state with impenetrable elephant grass, scrub trees, and brush. A substantial area lay under water for some time. In 1948 heavy equipment was used to drain and clear 190,000 acres to provide more food and land to the landless, particularly refugees from Pakistan. Roads and drainage ditches were constructed, malaria was gen-

erally checked, and the area was made habitable.

The result is a flat fertile land similar to and almost as fruitful as the best of the American Midwest. Two crops a year are often possible. A tract of 16,000 acres was retained by the U.P. government and has been assigned as a site for a new university. The income from these acres will be available partially to support the school, and the farm will be used for research purposes as required.

The physical layout of the institution has been carefully planned as a large half circle, with the administration and general service buildings in the center. A wedge of the circle is assigned to each college group, with the academic buildings in the front and hostels for housing and feeding the students in the rear. Four major buildings have been completed. The university is unique in India because it will have a common campus for training students in agriculture, veterinary medicine, agricultural engineering, home science and basic sciences, and humanities.

The administrative organization also is new to that country in these respects:

1. The school will be governed by a board of management, created by statute of the U.P. government, and will be a legal corporate body with full autonomy to operate the school,

'Every student must work on the farm
a specified number of hours a week to meet
the charge for tuition, and a portion
of the fees, particularly food and housing,
can be met by working additional periods.'

to establish general policies, to hold and transfer real and personal property, to grant degrees, and to administer any funds placed at its disposal for these purposes.

2. An academic council has been established, with sole authority to determine educational policy.

3. The administrative organization is similar to that of many American universities with a vice chancellor as principal administrative officer, a controller, a registrar, deans of the colleges, a dean of student welfare, and other officers. It is the first time that a controller has been appointed in an Indian university. Previously the business functions were administered by an academic officer.

Another feature of the university, unique in that country, will be a required work program. Every student must work on the farm a specified number of hours a week to meet the charge for tuition, and a portion of the fees, particularly for food and housing, can be met by working additional periods. Last July the colleges of agriculture and veterinary medicine enrolled their first classes.

For the first time in India, students proceeded through a registration organized in the American pattern, enrolling in classes that meet at specified hours each week for one semester, for which credit hours are granted toward a degree. Hostels for students

in these two colleges have been constructed. Funds also have been approved for the construction of all necessary educational and service buildings for the other colleges, which will be opened within the next few years.

Perhaps the one most significant development in establishing this university is that the instructional staff will teach, will collaborate with the students in carrying on research, and will conduct examinations. On the basis of these activities a grade will be recorded, credit will be given, and a degree will be awarded after the accumulation of a specified number of required credits, entirely independent of any other institution.

Illinois Provides Consultants

Representatives of the University of Illinois have cooperated with officers of the government of India and the U.P. state government in planning and organizing the institution, and their recommendations have generally been followed. The University of Illinois now has contracted with the International Cooperation Administration, through the U.S. Technical Cooperation Mission in India, to provide both short-term and long-term consultants to act as advisers to the vice chancellor, other general administrative officers, deans of colleges, and heads of departments.

These advisers will have a significant part in determining the success or failure of the new institution during its initial years. The long-term consultants will serve at least two years in this capacity. This adventure in higher education is being closely watched by educators throughout India and the United States.

As is generally the experience of business officers, for the last 20 years I have been assisting many University of Illinois staff members in arranging journeys to foreign countries, with never an opportunity to engage in such activities myself. Accordingly, when the government of India requested that a short-term consultant be appointed to assist the controller of the new U.P. Agricultural University, I expressed interest in such an assignment, and eventually my appointment was approved.

I spent two months at the Tarai Farm advising the officers of the infant university on policy matters and preparing detailed systems and procedures for business and financial operations. These were based upon Volumes I and II of "College and University Business Administration." Some major problems were encountered.

For example, it was found that in Indian education the practices followed in granting salary increases are far different from those in the United

States. The Indian system, described as "incremental," establishes a minimum starting salary, standard annual increments of increase, and a maximum. The terms of such a contract, established at first employment, are never modified until the individual is appointed to a new and different position or until he terminates his employment by resignation, retirement or death. The first does not often take place, and the system of transfers between institutions is quite inflexible. The result is that when a person accepts a position, there is a very good chance that his income is established inflexibly for the rest of his career.

Although such a system offers some measure of security, it gives no reward for merit, distinction or productivity. We suggested a system of merit increases, in addition to the incremental system and, after a great deal of discussion, there appears some probability of its acceptance.

Several basic differences exist between the Indian and American methods of classification and reporting of expenditures. For example, the Indian system classes all allowances as expense, although certain are, in fact, compensation for personal services rendered. Although some compromises were necessary, officers of the new institution were, in general, willing to accept the recommendations offered. It is hoped that the procedures and reports of the new institution will follow what are generally considered to be the best practices for institutions of higher education in the United States.

Tarai Farm is 156 miles northeast of New Delhi, a hard day's drive by jeep. There are no comfort stations en route. The roads are full of bullock carts, bicycles, rickshaws, and pedestrians by the thousands. New Delhi is the nearest source of Western food, supplies and medical service. In rural areas one can see an Indian no matter where he looks, and quite often a family group squats on a white cloth, their only home.

The people are generally friendly, although excitable. If an American loiters in a provincial town, he is soon surrounded by a staring crowd composed of people who are usually poverty stricken and illiterate.

Life for the Americans at Tarai was a continual struggle to obtain

the "luxuries" of electricity, refrigeration and water — hot or cold. If one was fortunate, he could obtain a cook trained to Western standards of food preparation and sanitation at a salary of about \$16 per month; pay of other servants was lower.

The servants worked 14 hours a day, seven days a week, with no overtime or days off, and they were surprisingly efficient, considering the tools and facilities with which they had to work. All water and food had to be boiled; and if any traveling was done, sufficient supplies of both had to be hand-carried for the duration of the trip. In spite of these precautions, we experienced many minor attacks of dysentery.

The jungle starts less than a mile from the settlement and stretches to the Himalayas 15 miles distant. The front ranges are as high above the plain as the Rockies are above Denver. By traveling by jeep and horseback to vantage points 20 or 30 miles into the mountains, we could see the snowy ranges up to 26,000 feet high; they were 70 miles away over the roughest country in the world. Beyond lay Tibet and China, but there are no means of travel except a few almost impassable mountain foot trails.

Small patches of jungle throughout this portion of India harbor many deer, jackals, hyenas and monkeys — and there are seven or eight tigers on the farm. A wild elephant herd made forays into the farm orchards. The exteriors of the Americans' houses are brightly lighted at night when the electricity is on to discourage the animals, and we held walking after dark to a minimum.

The weather has a terrific impact upon human beings living in India. Although it is delightful in March, in a few weeks the thermometer reaches about 100 F. every day, and in late May and June, it is considerably higher. After the monsoons start in July, the humidity is high, and a myriad of insects and reptiles invade the houses.

The country has a relatively stable economy, based largely upon agriculture but with few other raw materials and resources. Its economic growth has no way to go except up, and with the help being offered to it, progress should be achieved. However it will be a slow and laborious process. ■



'The knottiest problem we faced in the interior design was whether to allocate space to maintenance shops for keeping their own inventories, or have central inventory.'



SHEET METAL SHOP, showing double doors that lead into the warehouse. The doors are wide enough and high enough to allow lift trucks to move in and out.

Notre Dame Solves Warehouse Problem

Rev. Jerome J. Wilson, C.S.C.

Vice President-Business Affairs, University of Notre Dame, Notre Dame, Ind.

THERE can be no question of the tremendous increase in efficiency and savings that have been effected through larger, more adequate shop and warehouse facilities at the University of Notre Dame. Almost six years in the planning stage, the university's new warehouse, shops and garage building provides a smoother flow of materials; allows warehousing in much larger quantities, taking advantage of larger discounts; has parking space for 50 vehicles, and houses eight separate maintenance shops.

The need for combining the ancient, inadequate and sprawling facilities then serving our maintenance and warehouse needs into a single economical and efficient unit was apparent to all at the university some seven years ago, and efforts began at that time to acquire the necessary funds. While the fund raisers were at work, we used the enforced delay to plan the building.

Space had to be allotted in our initial plans for a large warehouse, the eight maintenance shops, and a large repair and storage garage. We estimated that we would require in the neighborhood of 50,000 to 60,000 square feet and budgeted a goal of \$500,000, although we hoped it could be done for considerably less money.

We visited commercial warehouses in search of modern methods and techniques of warehousing and studied layouts of maintenance shops at other universities. These field studies confirmed our thinking on loading dock height and we planned loading docks for the shops and warehouse with ground-level access to the garage.

Our shop foremen were in favor of ground-level shops so that they could drive vehicles into the shops during the working day and park them there at night. A visit to the maintenance center at Cornell University did much to convince us, however, that

the shops as well as the warehouse should be at loading dock height. Smoothness of operation and efficient flow of materials throughout the Cornell building lent evidence in favor of the dock height building. Vehicles could be stored in a garage, an integral part of the building.

Given the decision to build at loading dock height, the choice of a site presented certain difficulties. The most suitable site was an area along a railroad siding and close to a public road, but the area, like most of the university campus, was quite level. There was not sufficient space to allow excavation for driveways, sidings and approaches to achieve a loading dock effect for a building actually on ground level. We found this difficulty could be solved by compacting dirt so that the floor of the building would be at loading dock height. In the actual building we found this compaction of dirt so complete that founda-

tion holes had to be dug in the same manner as though the digging was done in solid ground.

We toyed with the idea of using the cheapest building construction — all metal. We knew we could dress up the front with fancy brick or stone work but we ran into problems in the roofing situation for such a large building. Furthermore, since the site selected was in an area that may well

This firm was on campus at the time as architects for our new dining hall and two new residence halls. The architects were sure they could design a modern brick building at a cost close to that of the firm specializing in warehouse construction. In addition, they felt their building would be much more attractive and even more functional because of additional freedom of design in certain areas.



Interior of Notre Dame's new warehouse, where four types of storage are provided: ordinary metal bin and flat metal shelving; palletizing on steel racks; free palletizing, and free standing materials. Lift trucks utilize the ample aisle space to reach all pallet racks. Lighting equipment is located over aisles and storage racks to facilitate more efficient inventories.

figure prominently in the future growth of the campus, we feared that an all-metal building might be an eyesore later on. Our next step then was to consult a construction firm specializing in warehouses.

We were almost at the point of awarding the contract to a warehouse construction firm when we interested the architectural firm of Ellerbe and Company, St. Paul, in our problem.

By the time the architects took over, final ideas for the interior of the building were already down on paper in rough sketches and drawings. The knottiest problem we faced in the interior design was whether to allocate space to the maintenance shops for keeping their own inventories, or have central inventory space. Historically, our policy had been to permit separate inventories; however,

knowing that such a procedure violates the thinking of many specialists in inventory control we felt this new building should be designed to allow for complete central warehousing, even if we did not choose to install this procedure immediately in connection with our shops.

A review of inventory shortages in the shops over a period of time did not produce evidence that such control should be taken away from the shops at present. In addition, to remove control from the shops would mean the employment of at least five more men in the warehouse; therefore, if inventory shortages could be otherwise controlled, there seemed to be no point in changing our present policy.

The building was designed so that the shops could be operated under either plan. All shops were placed along two sides of the warehouse and large double doors, 6 feet wide and 7 feet high, were located at the rear of the shops opening into the warehouse. The doors are wide enough and high enough to allow lift trucks to move in and out with ease. Inventory space for each shop was situated in the rear, in the area surrounding these doors. At any time, therefore, wire mesh fencing can be erected in front of this inventory space and immediately the shop will be separated from its inventory and the inventory storage will become part of the warehouse by simply leaving the double doors ajar. We decided to have separate locks on each side of these doors so that the shops would not have access to the warehouse or the warehouse to the shops except by special arrangements between them.

The building, we found, could not be a perfect rectangle, for the front, or east side, would have to be extended in order to provide office space and a garage large enough to include adequate facilities and storage space for 40 to 50 vehicles nightly.

Pipe and plumbing shops, the electrical shop, and the sheet metal shop were placed on the front, or east side, of the building, while the carpenter and paint shops were located at the south end. The railroad siding and three loading docks were on the west side, and the north side provided three truck loading docks for the warehouse. The garage was placed at the northeast end of the building and

the offices at the southeast end. Immediately behind the offices are the upholstery shop, the wax and soap shop, the general maintenance shop, and an area to serve the grounds crew. Double doors were placed between the carpenter and paint shops so that finished work could be passed from the carpenter shop into the paint shop for necessary painting.

We considered the possibility of gang washroom and toilet facilities but the architects convinced us that additional expense involved in installing separate facilities for each shop and for the garage and warehouse would be saved over the years by not having a common gathering place for all employees, thus discouraging needless delays in the work routine. By installing separate washroom and toilet facilities we were able to limit our interior corridor space to only 540 square feet. This means the square footage of the building is being used to the maximum.

The architects spent considerable time in the old shops studying the actual flow of materials and the movements of the men and finally charted what they felt should be the proper flow of materials and placement of machinery. Shop foremen were permitted to criticize the designs and to suggest changes but, once agreement was reached, no further changes were permitted even in the actual installation.

The layout of the warehouse followed the technics used by large commercial warehouses. Since both of our dining halls have vast storage areas within them, it was not necessary to plan for food storage in the new warehouse but a careful study revealed that we would need four types of storage: ordinary metal bin and flat metal shelving storage; palletizing on steel racks; free palletizing, and, finally, free standing materials. The free height of the warehouse was established at 12 feet to allow for the maximum palletizing afforded by modern medium size lift trucks. The actual measurement from floor to underneath the steel girders supporting the roof was 13½ feet.

The sprinkler system that covers the entire building was threaded through the open web type of steel joist to minimize the danger of breaking the sprinkler heads. This also afforded sufficient clearance for good sprinkler

action in case of fire. All aisle space between shelving, bins and palletizing racks was kept sufficiently wide to allow access by lift trucks, and no length of shelving was permitted to run more than 30 feet so that employees would not have to take long circuitous routes to get to various sections of the warehouse. The warehouse is more than twice as large as our present needs, but we are sure

lic road, we felt it was necessary to take security measures. The entire site was enclosed with wire mesh fencing and, in addition, 10,500 square feet of outside storage space was provided by placing another fence within the enclosure. A flood-lighting system was installed. A parking area across the road, separated from the university campus, was provided for employees, whose vehicles



Front view of the warehouse building. Offices are in the foreground.

that within 10 years all of this space will be needed.

The building is 380 feet in length in the front and 210 feet deep. The total square footage is 66,880 feet, broken down as follows:

	Sq. Ft.
Warehouse	30,240
Garage	10,080
Sheet metal shop	3,645
Electric shop	3,075
Pipe shop	4,200
Paint shop	3,450
Carpenter shop	6,050
All other shops	3,650
Office space	1,950
Corridors	540
TOTAL	66,880

The garage is laid out with a generous repair area, hydraulic lifts, and a good washing rack, with space for parking 50 vehicles overnight. Three gasoline pumps are installed immediately outside of the garage.

Since the building site is on the periphery of the campus near a pub-

are not allowed within the enclosed area at any time.

A paneled office was designed for the director of maintenance and a private office for his assistant. A large drafting room was provided for the university engineer and a general office was allotted to the office staff.

The total cost of the building, including the cost of bringing utilities to the site, the installation of a sprinkler system throughout, compacting of the dirt previously mentioned, and the use of Notre Dame brick, which is much more expensive than ordinary brick, was \$580,000. This figure includes all furnishings, shelving, and so forth. Dividing this amount by 66,880 square feet gives a cost of \$8.67 per square foot. This price also included the placing of aluminum canopies over all docks.

The amazing thing about our new building is that if we were to start today to design a similar one we would make very few changes, and only minor ones at that. ■

Some Cures for a Case of Chronic Multiple Registration

Harry F. Bangsberg

Assistant to the Director
Board of Regents of State Colleges, Madison, Wis.

AFTER talking with admissions personnel and college presidents, one comes away with the distinct impression that multiple registration is one of the many severe plagues being visited upon the Educational Egypt these days.

A deluge of applications inundates the admissions office during the spring and summer months. With a skeptical eye (produced by past experience) the admissions director cautions against believing that the vast total will be realized. Most of the students undoubtedly have registered elsewhere, probably at four or eight institutions, he warns.

Nevertheless, sufficient books have to be ordered, class schedules planned, revenues and expenditures estimated, and tottering facilities and overtaxed faculties (perhaps the reverse is more accurate) prepared — all on some sort of numerical basis related to the registration figures. And it is only natural that the president envisages full residence halls whose receipts will help meet the mortgage, while the professors mutter about hordes of increasingly illiterate students assailing the breastworks of knowledge.

But then comes the registration period, the moment of truth. In most instances, the full total is not realized. In other cases, it is badly surpassed.

Rare indeed is the institution that hits its projection on the head, or anywhere above the waist. Registration is followed by an "agonizing reappraisal" of the financial picture and the class structure, and by meditations on what might be done to liquidate the multiple registrant.

A survey of 50 Midwest colleges and universities reveals that most are afflicted by this problem of multiple registration, a problem that could well increase in magnitude as the number of students desiring to enter college soars. The proportion of the pestilence varies, however. Some schools, especially those serving a specific geographic area containing few institutions, report little or no trouble. The offering of an educational specialty also may mitigate the problem. Bemidji State College in Minnesota has given little thought to the multiple registration problem; Maurice Manbeck, assistant dean at Eastern Illinois University, said: "Ours is a regional college and most of the students who do make application . . . have no thought of applying to another." The "no shows" at Eastern run about 10 per cent, while at St. Norbert College, West DePere, Wis., the percentage is about 15.

In order to make a prospective enrollee think twice before casually sub-

mitting his application, to nail him down once he does submit it, and to partially underwrite the increased secretarial costs caused by multiple registration, more and more private colleges are insisting upon some sort of initial payment — be it an application fee, matriculation fee, or tuition deposit — with the completed application form. All of the 29 private Midwest colleges contacted follow this general procedure, which might be construed as defensive. While only one of the 21 public institutions — Ball State Teachers College, Muncie, Ind. — charged a fee, a goodly number are either contemplating such action or look upon it with favor.

Among the institutions charging some sort of initial fee, which ranges from \$5 at Ball State to \$25 at Hamline and Illinois Wesleyan, and even \$50 elsewhere, there is a growing tendency to regard the entire sum (if it is small) and part of it (if it is substantial) as a service charge for processing the application.

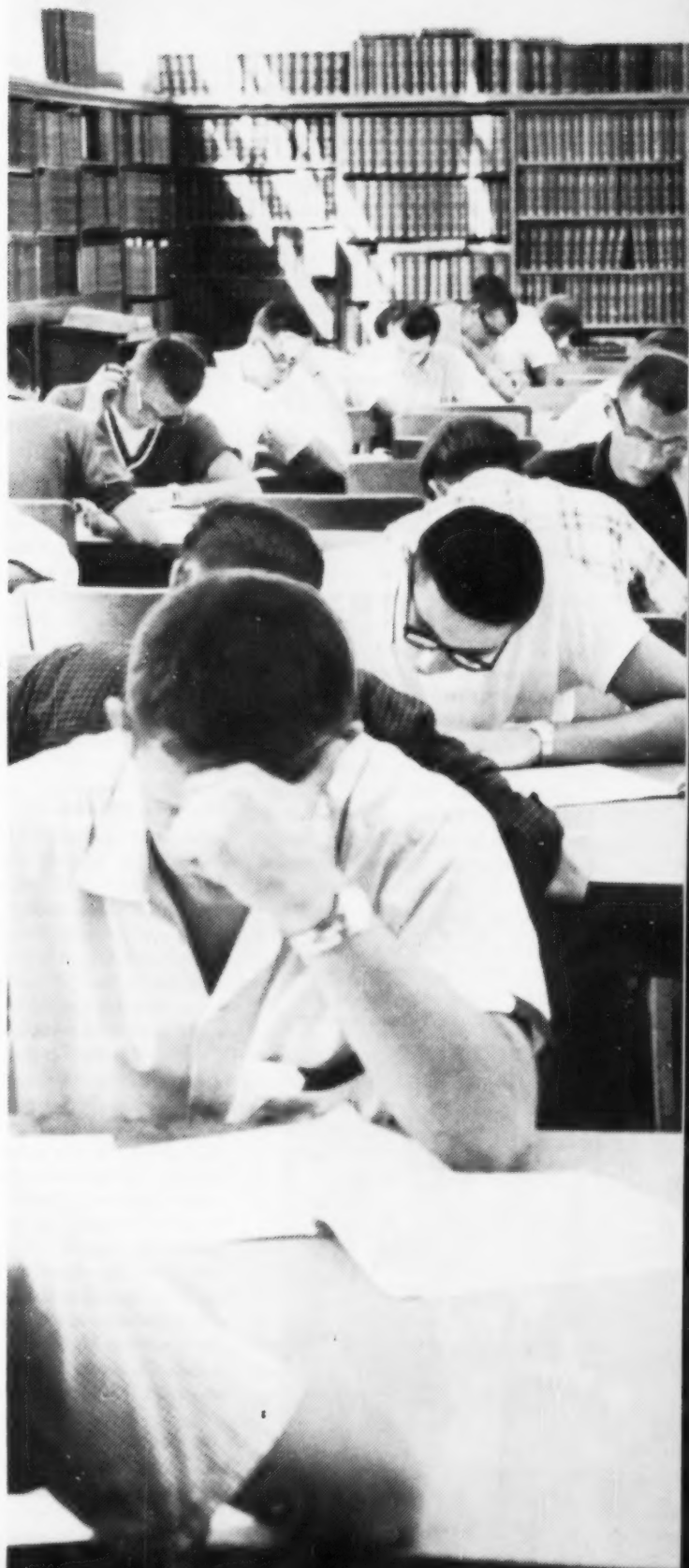
At least 22 of the 29 private colleges stipulate that they refuse to refund the initial amount, or do so only under unusual circumstances. And Ball State does not refund its matriculation fee. Beloit, Carleton and Hamline are among those institutions that specifically indicate that they

Most students participate in admissions tests like the one being taken at Wisconsin State College (right). Some educators believe that examinations have been made too important in the selection of the student.

view the initial fee as a service charge. Of the other private colleges, four give a partial refund when a student withdraws before the semester begins, and here again the concept of a service or processing fee enters in. At least part of the financial burden involved in such transactions is being shifted to the student. Only three colleges indicated that they refunded the entire initial payment and two of these — Concordia at Moorhead, Minn., and Drake University at Des Moines, Iowa — do so only if the student is rejected for enrollment by the college.

The application fee, however, is not the only financial device used to nail down the student's application. At least nine of the private institutions also have other fees that must be paid shortly after the student has been accepted for enrollment, and generally well in advance of the fall semester. Moreover, virtually every institution, public or private, requires a dormitory deposit for those wishing, or required to abide in, campus housing units.

Of the nine institutions charging these special fees, seven refund only under unusual conditions, while the remainder grant refunds up to a certain prescribed date. Beloit, for example, demands a nonrefundable \$50 deposit after the student is approved



for admission and another \$50, again nonrefundable, by July 1, the proceeds being applied to first semester bills. Carroll College and Luther College require \$50, with the former refunding only in cases of illness or military service, and the latter under "unusual circumstances."

Demanding a residence hall deposit is almost universal among the schools surveyed, as is the policy of refunding the deposit up to a certain date, which ranges from two weeks to three months before the fall semester commences. Only a few colleges, such as Carroll, Milwaukee-Downer, the University of Dubuque, Ripon and St. Norbert, indicated that they gave no residence hall refund. Several schools, however, do charge a service fee, generally about \$5, for the trouble involved in processing the refund and, perhaps, filling the vacated room.

At least 11 of the institutions queried indicated that they were either contemplating new policies or putting such into effect in the near future. And invariably these involved student assessments. Beloit, for example, is considering combining its two \$50 assessments into a single \$100 fee, and Carroll may increase its present \$10 nonrefundable application fee to \$15 or \$20. Austin Buchanan, director of admissions at Central

Prospective students are given receptions and administered to, but will they finally attend your institution or will they go to another?

Michigan, thought it likely that the Michigan state colleges would require a \$50 nonrefundable payment next fall. And Lee Short of Illinois Wesleyan said that institution might put its \$25 application fee on a strict nonrefundable basis.

A slight innovation may be introduced next fall at Ball State Teachers College, reported Richard D. Rowray. In addition to multiple registration, some colleges also have numerous students who register for a class (if the school has pre-registration), then never attend the class. Hence, next fall Ball State will introduce a \$10 permit-to-register fee.

At the same time colleges are establishing financial deterrents to multiple registration, most admissions officers quickly will admit that such is not the answer to the problem. In fact, there probably is no single answer or cure-all. Most tend to agree, nevertheless, that the advance fee does discourage "some of the shoppers," as Justin Brown of Drake calls them, and serves as a declaration of good faith and intent to arrive at the next semester session.

Disagree On Fee

Directors can produce considerable evidence to support the contention that a nonrefundable advance fee has, at least, a discouraging effect upon multiple registrants. There is disagreement, however, on how high the fee must be before it proves effective. Some directors say \$25, while others would hold out for \$100 or even \$200. Karl Nordgaard of Luther College said increasing its deposit from \$10 to \$50 produced fewer cancellations. Students intending to enter Carleton must pay \$210 over a short span, and Charles Gaven commented that "only a few students change their minds about registering" after having deposited that much.

On the other hand, of course, one can find evidence that students still will withdraw, especially if the penalty is not too high. John R. Anderson of Beloit said 207 accepted candidates who paid the \$10 processing fee subsequently withdrew, as did 18 who also paid an additional \$50. Beloit also refused admission to 274 candidates who paid the initial \$10 processing fee.

Other avenues, not strictly financial, have been suggested as approaches to

an easement of the problem. E. Ben Weinke of Carroll College pointed out that the secondary schools could help by limiting a high school graduate to three transcripts until he brought back proof that three institutions had refused to accept him. Weinke added that some Illinois secondary schools give a free initial transcript, but charge from \$5 to \$10 to cover future ones.

Problem Not Limited to U.S.

Since there probably is no final solution, it may be consoling to know that the multiple registration headache is not limited to the United States. The United Kingdom is suffering, too. Writing in *The Listener** (publication of the British Broadcasting Corporation), Michael Young, author of the celebrated volume, "The Rise of the Meritocracy," reveals that the plague has crossed the Atlantic.

Mr. Young remarks that "university entrance" might be a new subject for secondary schools because of the growing tendency to apply at the largest possible number of universities and colleges, hoping to be lucky somewhere. He quotes one lad as admitting: "I applied to 11 universities: Manchester, Birmingham, Reading, Leeds, Leicester, Southampton, Bristol, Exeter. I can't remember them all at the moment."

The result, as most American educators know only too well, is that "by autumn boys and girls who have not been accepted will be frantically chasing universities, and universities chasing boys and girls, the cleverest ones."

Author Young attributes the English problem to several factors, and insists that the heart of the problem . . . is that examinations have been made much too important in the selection of students." He also cites the "clique system" which has worked against lower class students entering Oxford and Cambridge, although he admits that "King Clique is being slowly dethroned by King Examination." An overhauling of admission requirements, the establishment of clearinghouses to process applications, and the greater publicizing of the less-known universities, many of which have excellent programs, would also help, he believes. And they might help us, too. ■

*Young, Michael: Pressure at Eighteen-Plus, *The Listener*, June 2, 1960, pp 967-69.

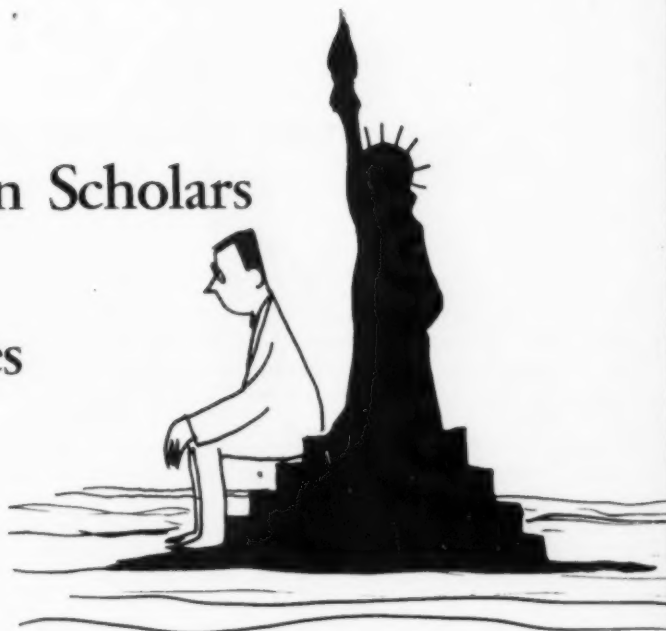


How To Help Foreign Scholars

Understand U.S. Taxes

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IN WORKING with the tax problems of the foreign scholars at the University of Washington, I keep two aims in mind. The first, of course, is to follow the federal income tax laws to the best of my ability. The second is to give as much assistance and assurance as possible to these visitors, to whom our income tax laws are difficult to comprehend and often seem unreasonable.

Since the tax laws applicable to nonresident aliens are quite different from those applicable to resident aliens, it is necessary to have some understanding of the terms "nonresident" and "resident." The most helpful definition I have found is contained in Information Guide No. 7, published by the International Operations Division of the Internal Revenue Service. This Guide informs the visiting scholar: "Generally speaking, if you have no intention of remaining in the United States after completing your study, research or teaching here, and your visit is on a temporary visa for a definite purpose which will require a stay in the United States of basically less than two years, your status for United States tax purposes is presumed to be that of a 'nonresident' alien individual."

The Guide advises the foreign

scholar who plans to be in the United States for more than two years to promptly file a certificate of residence (U.S. Treasury Department Form 1078) with the financial authorities of the university or school to which he is attached. However, the regulations for section 871 of the Internal Revenue Code excuse the employer from obtaining this form so long as an equivalent statement is filed or the employer is satisfied that the alien is a resident alien.

It appears to be generally accepted practice in educational institutions to request any new noncitizen employee to complete a questionnaire that provides the employer with sufficient information upon which to base a decision.

At this point the residency status has been determined, and it is necessary to decide the proper amount to withhold. With the resident alien there is no problem; tax is withheld the same as for a United States citizen, the employer reports income and withholding on Form W-2, and the employee reports his income from all sources on Form 1040, 1040A or 1040W.

With the nonresident alien the tax picture is entirely different. The withholding rate is different; the exemptions are different; the nonresident alien is taxed only on income from sources within the United States.

A nonresident alien who is performing services for an employer in the United States is deemed, in the language of the Code, to be "engaged in trade or business within the United States." Under section 1441, he is subject to withholding at the rate of 30 per cent and is allowed only one personal exemption.

Income covered by specific provisions of tax treaties is not subject to this general rule. For example, the withholding rate for Canadian residents is 15 per cent.

There are also exceptions to the exemption rule. Residents of Canada and Mexico are allowed by the Code to claim exemptions on the same basis as United States residents, and the Japanese tax treaty allows exemptions for spouse and children who reside with the taxpayer in the United States.

The personal exemption is prorated on the basis of \$1.70 per calendar day during the period of employment. This proration is based on \$600 per year, and thus amounts to \$50 per full month. A nonresident alien employee, paid at the rate of \$500 per month, would be taxed at 30 per cent of \$450, or \$135 per month. It should be noted that in most cases the tax withheld is in excess of the actual tax liability, and the employee will be entitled to a refund when his tax return is filed.

Tax treaties, or conventions, are entered into by the U.S. Government

From a paper presented at the Western Association of College and University Business Officers, Salt Lake City, 1960.

'... give as much assistance and assurance as possible to these visitors.'

with foreign governments for the primary purpose of eliminating double taxation. Tax treaty provisions always will take precedence over the Internal Revenue Code.

Most treaties provide in somewhat uniform language that a professor or teacher who visits the United States for the purpose of teaching for a period not exceeding two years is exempt from United States tax for that period.

In the case of the tax treaty with Greece, the period of exemption is extended to three years. The Swedish treaty has no such provision, so the Swedish professor is subject to the 30 per cent rule. The treaties with France and India are the most liberal toward foreign scholars at educational institutions. They provide a two-year exemption for other professional employees, as well as teachers, under certain specified conditions.

Many of the treaties have additional provisions that exempt from tax all earnings if less than a certain amount and if the alien is in the United States for only a specified time. The dollar limit ranges from \$3000 to \$10,000, and the time limit from 90 to 183 days, depending on the specific treaty.

Dates and Forms Differ

Dates for filing annual income tax returns, as well as the forms themselves, are quite different for the nonresident alien. He must file a form 1040B, U.S. Nonresident Alien Income Tax Return, by June 15. The employer files Forms 1042 and 1042S by March 15.

Form 1042S corresponds with Form W-2. One is prepared for each nonresident alien employee. These forms are summarized on Form 1042, along with a detailed statement showing the amount of income exempted from tax by reason of the \$1.70 per day allowance, and showing the reasons for exempting other income under tax treaties or revenue rulings.

At the time the nonresident alien files his income tax return, the employer is permitted by Revenue Ruling 54-584 to refund to him any excess of tax withheld over the amount due, provided the alien has not claimed credit on his return for this excess. If the alien files a 1040B without requesting this refund from his employer, he must await refund of the overpaid tax from the Internal Revenue Service. All nonresident alien tax returns are processed through the International Operations Division in Washington, D.C.

The U.S. Treasury Department has a form letter on which the employer may indicate to the Internal Revenue Service the amount of income paid to a nonresident alien and the amount of tax withheld. In reply the Internal Revenue Service will issue a letter authorizing the employer to refund a specified amount of the tax withheld.

The alien may not claim the standard deduction of 10 per cent on his tax return, but he may itemize the usual deductions. If he can show that he is present in the United States on a temporary activity that requires him to be absent temporarily from his accustomed place of business or regular place of employment abroad, he may be entitled to deduct travel, meals and lodging in connection with his employment. Further information for the filing of Form 1040B is contained in Information Guide No. 6.

The departing alien must file a Form 1040C at any office of the District Director, but not earlier than 30 days prior to his departure from the United States. He must obtain a statement from his employer showing income and tax withheld and present this to the Internal Revenue Office along with his passport and other information regarding his travel plans and his status in the United States. He must also provide proof of payment of any income tax that was due for three years prior to the year

of departure, or for whatever shorter period he may have been in the United States.

There is one situation in which a nonresident alien might file a Form 1040, rather than 1040B. This occurs when there is a change of status during the year from nonresident to resident, or vice versa. The tax is computed by dividing the year into two parts and applying the appropriate set of rules to each part. The exact procedure is described in Information Guide No. 3.

These Information Guides number seven in all and may be obtained without charge by writing to the Director of International Operations, Internal Revenue Service, Washington 25, D.C.

In considering income tax laws relating to nonresident aliens, we must also look at section 117 of the Internal Revenue Code, which excludes from taxable income amounts received as scholarship or fellowship grants. It is often the source of income for the nonresident alien.

Define Scholarship, Fellowship

The Code regulations define a scholarship, in part, as generally meaning "an amount paid to, or for the benefit of, a student, whether an undergraduate or a graduate, to aid such individual in pursuing his studies." A fellowship is defined in similar terms, except that the words "or research" are added: "A fellowship grant generally means an amount paid or allowed to, or for the benefit of, an individual to aid him in the pursuit of study or research." The regulations further state that to qualify as a wholly or partially exempt scholarship or fellowship, the grant must be for the primary purpose of furthering the education and training of the recipient in his individual capacity, shall not represent compensation for past, present or future services, and shall not include studies or research performed

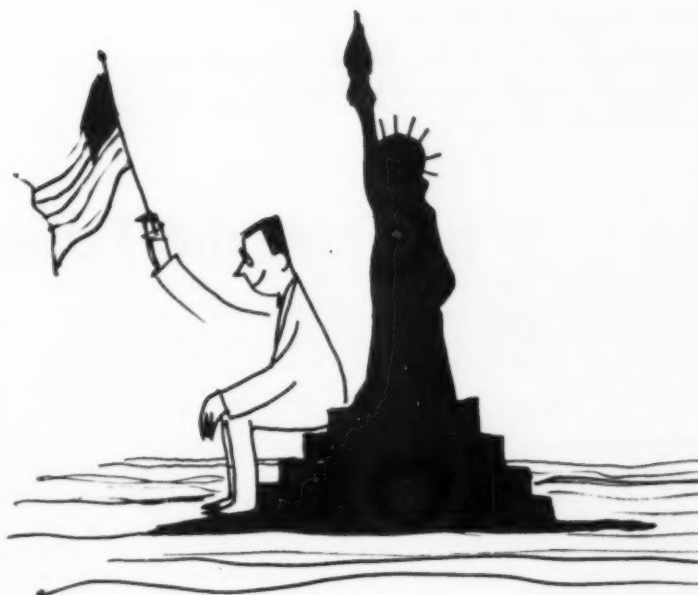
primarily for the benefit of the grantor. If a student receives a scholarship, we can be pretty sure that there is nothing in the nature of an employer-employee relationship. However, we must be very careful in our decision as to whether or not a research grant is taxable.

In the case of students who are candidates for degrees, the law provides that the entire amount of the fellowship grant is excludable from gross income, including amounts received to cover expenses incident to the grant that were actually expended for these purposes. There is no limitation as to dollar amount or time.

The law further states that if an educational institution requires teaching, research or other services as a condition to receiving a degree of all candidates, whether or not recipients of grants, such service shall not be regarded as employment and the entire grant shall be exempt from tax. This immediately raises questions.

It is a requirement that candidates for most master's and doctor's degrees perform research and set down the results in a thesis. Some students have appointments as research assistants and find it possible to use some aspect of a particular research project with which they are connected as a subject for their thesis. Others have no such appointments and do thesis research independently. What, then, is the taxable status of income received by research assistants who use this research experience as a subject for their thesis, when thesis research is a requirement of all candidates for the particular degree they are seeking?

The answer, from our side of the fence, seems quite clear. This is definitely an employer-employee relationship. The student was not required to perform services as a research assistant in order to qualify for his degree. Hence, his income as a research assistant is taxable. William W. Oliver, in the spring 1957 issue of the *AAUP*



Bulletin, suggested that "where it is a practice of long standing in a department or college that all graduate students are employed in part-time teaching or research, it would appear advisable to consider making this teaching or research requisite for obtaining a degree, so as to differentiate it clearly from work that results in taxable income."

In the case of individuals who are not candidates for degrees, there are further requirements and limitations in order for the fellowship grant to be excludable. The grantor must be a governmental body, agency or instrumentality, or a tax exempt organization. Further, the exclusion cannot exceed \$300 per month nor may it extend for a period longer than 36 months, whether or not consecutive.

The \$300 per month ceiling refers to the primary grant, and not to additional amounts to cover expenses. These additional allowances must be specifically designated as such and must be expended for such purpose in order to be excludable.

The \$300 per month exclusion is computed upon the months covered by the grant, not the months in which the money is received. One month of the exclusion is used even though the amount applicable to that month is less than \$300. If the fellowship income of a recipient includes amounts from more than one grant, the total

exclusion still may not exceed \$300 per month, and the month for which amounts from more than one grant are received is counted as just one month toward the 36 month limitation.

Since there is a limitation of \$300 per month exclusion for individuals who are not degree candidates, the question arises as to the responsibility of the granting institution for the withholding of tax on amounts over \$300 per month. In order to clarify this, the University of Washington requested a determination as to whether or not we were required to withhold. The local District Director of Internal Revenue replied:

"Where no services are performed for the university in exchange for monthly payments to the recipient, there is no liability on the part of the university to make withholding tax deductions.

"It is the responsibility of each recipient to file a Declaration of Estimated Tax, Form 1040-ES, and make quarterly payments in advance of filing his annual income tax return."

The nonresident alien who receives wholly or partially tax exempt grants is "not engaged in trade or business within the United States," and, if this is his only income in the United States, he is required to file a Form 1040NB rather than Form 1040B. He is not entitled to personal exemptions on his income from these sources. ■

New trends in financing
higher education for students
poses an interesting question
for college officials . . .

Who Pays the Education Bill?

Robert W. Beyers

Assistant Managing Editor, Information & News Service
University of Michigan, Ann Arbor

TO AN increasing extent, Americans are backing their high hopes with hard cash in planning a college education for their children.

This is the major finding of a new nationwide study* by the University of Michigan Survey Research Center, the first to give college executives a family-by-family look at the financial impact of higher education. The study was financed by a \$40,000 grant from the U.S. Office of Education.

The average annual expense of unmarried college students is estimated at \$1550 during 1959-60. This compares with an average figure of \$1385 for undergraduate students developed by the Department of Health, Education and Welfare for 1952-53.

Total college expense varies widely by type of enrollment (full or part time), place of residence (at home or college), and by type of educational institution. For three out of four single students interviewed, however, the total annual cost ranges between \$950 and \$2450.

Using an average figure of \$1550, about \$950 comes from parents, \$360 from student earnings, \$130 from scholarships, and \$110 from other sources. (See pie chart on page 61.)

In greater detail, these were the findings:

Parental Support. Most parents with children in college contribute between \$500 and \$1500 annually toward the cost of their education. Only 13 per cent report paying less than \$50 an-

nually; at the other extreme, 2 per cent pay more than \$3000 annually.

Student Earnings. More than half the nation's college students now earn part of their expenses. Two out of 10 earn less than \$500 annually. Three out of 10 earn between \$500 and \$1500. Earnings above this figure were rare.

Scholarships. Three out of four students receive no scholarship support of any consequence. Fifteen per cent receive between \$50 and \$500 from this source, while 9 per cent enjoy \$500 or more.

The amount of money contributed by parents depends on the family's income, the number of children to be educated, and the educational achievement of the parents. Better educated parents tend to pay more, presumably to provide high quality education for their children.

Half Had Money Set Aside

Half the families who had children in college during the last five years used money set aside in advance to help pay for their higher education. In about one family in five, the mother took a job to help pay college bills.

Nearly half the families with children in college helped pay educational expenses by reducing other expenditures or by living on a tighter budget. Gifts or inheritances, additional work by the father, and borrowing were less frequently used for this purpose.

While having mother go to work to help meet college expenses apparently is regarded as normal, the authors note: "Borrowing to pay for a college education is regarded by most people as something to be done only when the need is acute and no other funds

are readily available." Among those who had children in college during the last five years, 14 per cent reported borrowing. Families borrowed for this purpose twice as often as students.

About one family in five (21 per cent) reported real difficulty in providing a college education for their children. Families in this group said they found it difficult to finance college and felt that the help they gave their children was inadequate. Among those with family incomes of less than \$5000, 36 per cent felt this way; for those whose incomes topped \$10,000, the proportion dropped to 11 per cent.

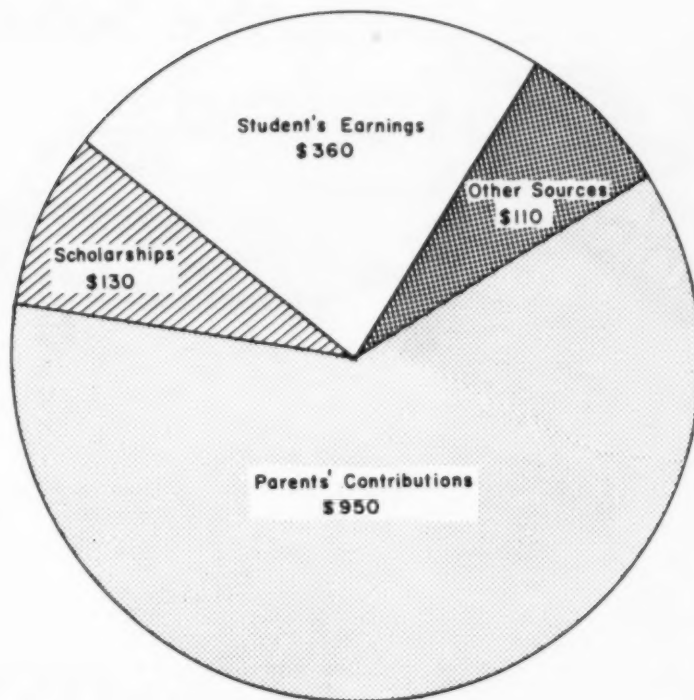
Reports of financial difficulty increased with family size. Among parents with only one child, only one in 10 said it was difficult to pay for college and felt the help they gave was inadequate. For those with two to four children, this proportion doubled. Nearly half of the families with five or more children said they had found it difficult to finance a college education.

"Parents of future college students are likely to be better prepared financially to pay for part of their children's education than those of recent college students," the U-M researchers believe. "Approximately half of the parents, with children under 15, who say that their children have a chance to attend college also report that they have money set aside that can be used to help pay for college. Most of these families report that the money was saved especially for education.

"During the past 10 years, there has been some shift from savings accounts and government bonds to endowment insurance by parents who are setting aside funds to pay for their

*The study was conducted by John B. Lansing, Thomas Lorimer, and Chikashi Moriguchi of the Survey Research Center. Their findings are documented in "How People Pay for College," available at \$5 a copy from the librarian, Institute for Social Research, Ann Arbor, Mich.

Components of the Mean Annual Cost of College for Unmarried Students



children's education. Of those who had children in college during the past five years, only 12 per cent had endowment policies. Among those who have a child between age seven and 12 now, and intend to send him to college, 32 per cent now have endowment policies.

"There seems little question that parents are now making more adequate provision for the future than did the parents of children who have recently been in college. It should be kept in mind, of course, that the experience of parents whose children have been in college recently was one of financial difficulty in many cases. Hence, there is substantial room for improvement in planning ahead financially for college. Some of this, at least, is taking place."

The U-M survey, based on interviews with a scientifically selected sample of 2700 families during 1959-60, furnishes new evidence of the increased demand for college education.

Among those families with children under age 10, for example, three out of four (73 per cent) expect their children will attend college. While this proportion declines as children near college age, 43 per cent of those with youngsters age 18 or 19 report that their children are either attending college or expect to enroll. During the last 10 years, the proportion of 18 to 21 year olds actually taking college programs has risen from 27 to 37 per cent, according to the Department of Health, Education and Welfare.

The U-M study shows actual or expected level of education for children is related to family income, the education and occupation of the family head, race, age and academic performance of the child. Among those

with family incomes over \$10,000, 95 per cent of those with children under age 10 expect their children to attend college, and 70 per cent of those age 18 and 19 are attending or expect to do so. At the other extreme, among families with incomes of less than \$3000, only 40 per cent of the children at most are expected to attend college, and only 20 per cent do so.

But the "gap" between college plans and actual achievement is greatest for middle-income families. Among those with income between \$5000 and \$7500, 80 per cent of the children age one to nine are expected to attend college, yet less than 40 per cent of those age 18 and 19 are actually doing so.

Nearly every child of a college graduate is expected to follow his parent's footsteps. Even if the family head only attended college, nine out of 10 children are expected to go.

All children who are reported by their parents to be at the "top of their

class" are expected to go to college, although only about two-thirds seem certain about this expectation. Of those whose grades are reported "average" by their parents, four out of five are expected to attend but far less certainty is expressed about these plans.

When asked where they expected to send their child to college, 48 per cent mentioned state supported institutions, 22 per cent private and denominational colleges, and 10 per cent city supported centers for higher education.

In a brief analysis of educational achievement in various regions of the country, the Center found that even when social and economic factors are taken into account the average level of education in the South is about one year lower than the rest of the country. A comparable difference was found nationally between residents of those countries which had at least one institution of higher learning and those which did not. ■



We Solved the

Parking

TRAFFIC control is one of the devices used to obtain maximum storage within parking lots. It is one of the major factors that determine enrollment, operations and development in a commuter college because the activities of the institution are limited to the number of students and staff who can park cars within a reasonable distance of the buildings. The deep problem, therefore, is parking. Hofstra College is perhaps as good an example of the college parking problem as any.

Unlike many colleges, Hofstra cannot sidestep the parking issue simply by legislating who can and who cannot have the privilege of parking an automobile on campus. Because of the very poor public transportation on Long Island and the lack of cross-island transportation, each student, professor and staff member represented a potential automobile. What, then, were the problems and when did they become apparent?

When Hofstra was founded in 1935

there was ample space on the roads, of what had been a small private estate, for casual parking for everyone. As the college grew to an enrollment of 800 and parking became crowded, a small farm adjacent to the campus was acquired, rough graded with a cinder bed, and once again parking was adequate.

At this point the college administration took a hard look at population projections for Long Island and two basic facts became obvious: (1) Ways had to be developed to increase the student/car ratio. (2) Maximum utilization of available parking areas had to be obtained.

First, the "Blue Beetle" service, so-called because of the school colors, was expanded. This was an ancient bus that hauled the few railroad commuters and "locals" from the Hempstead station just prior to 9 a.m. and returned them after 5 p.m. The "Blue Beetle" became a shuttle service of four buses operated on a published schedule making contact with the several bus lines terminating at the railroad station in addition to meeting all incoming and outgoing trains.

From a paper presented at the Eastern Regional meeting of the National Association of Physical Plant Administrators.

Problem on Our Campus

T. G. Walshe

Former Superintendent of Buildings and Grounds
Hofstra College, Hempstead, Long Island, N. Y.

Next, class schedules were adjusted so that staff and students leaving campus could be clear of the parking lots in time to allow the incoming wave to find spaces and make the classroom on time. To further speed the change-over, definite traffic patterns, approaches and exits were developed.

Initial studies revealed that little more than 60 per cent utilization of the available parking space was being achieved. Because most of the parking area was unpaved, orderly rows were impossible. The space between cars was almost enough to park other cars, but not quite. The answer was paved parking areas. However, habits having been formed and human beings being what they are, the utilization of paved areas improved only to around 70 per cent. At this time the administration was still not quite ready to accept the fact that the only complete answer would be hard and fast rules supported by an inflexible penalty system.

This thorny problem was sidestepped by a direct appeal to the student council together with an invitation to join the superintendent of

buildings and grounds in a visit to Jones Beach. Jones Beach is a state park where many thousands of visitors from all over the U.S. park daily. The students were impressed by the fact that they could not find an automobile incorrectly parked. No spaces were wasted by careless or indifferent parking. The answer was obvious. Everyone knew that any car incorrectly parked would receive a ticket, and a ticket meant a fine.

Since the students were the most inconvenienced by the existing parking at Hofstra, the council within a few days submitted a recommendation to the administration that a parking system be instituted. The recommendation included suggested regulations and fines and the observation that to be most effective it should be binding upon all users of college lots. The recommendation was quickly adopted, although it was some time before the faculty ceased fighting for "professoriate immunity" and saw the over-all advantages of the system.

Meanwhile enrollment continued to grow. A modest but continuous program of parking field development,

plus improvement and expansion of other "devices," and closer liaison and planning with the town traffic commissioner achieved a ratio of four students per parking bay.

However, the deans and the registrar ignored oft-repeated warnings that registration was limited by the parking facilities available and not by seats in the classrooms. After a few beginning-of-term scrambles with cars strewn every which way, the lesson was learned and parking became a recognized factor with closer attention being paid to the parking studies that had been developed.

This period also saw the development of maximum utilization of classroom facilities. This, of course, improved the student/car ratio too.

Two hard facts were evident from the studies: (1) The supply of undeveloped land was exhausted. (2) Laying out parking lots on a 90 degree basis provided maximum storage. While the college had been growing, the home building developers were busy also, with the result that to acquire an acre of land to the east meant an expenditure of \$100,000, and to

the west \$140,000. Considering a land evaluation of \$100,000, development costs and laying out of parking bays on a 90 degree basis, the per parking bay cost was \$976.

The conclusion reached: The college could probably add multi-deck parking over the 10 acre parking lot easier and cheaper than spreading parking facilities over the landscape. Multi-deck parking, resulting in a greater concentration of cars within a smaller area, will, however, require rigid control of traffic patterns and flow to ensure quick changeover of student populations.

Parking has always been segregated into two groups only — students and staff, both on a first-come basis. Since each division or subdivision of parking would require excess margins for peak periods, the total necessary excess is minimized by having only two parking categories.

Once 90 per cent of capacity has been reached, parking becomes uncomfortable; when capacity is beyond 95 per cent, it becomes irksome. While there are spaces available, they must be hunted, and all too often drivers find themselves playing mechanical tag.

Also, the trend toward small cars has been watched carefully for several years and has been charted to determine when advantage could be taken of this development.

Parking Lot for Small Cars

With these factors in mind, a small car parking lot was developed toward a medium rather than a peak load and placed in a "desirable" location so that it would be first choice for the small car operators. Once full, additional small cars would migrate to the conventional fields. Because of the self-imposed restrictions, small cars could not be legislated into small spaces and yet we could not afford to have them occupy large spaces while there were spots in the small car lot. Selection of the location solved this problem.

Dire and dread happenings were forecast up to the lot's opening day. Fortunately, the lot was an immediate success attested to by much newspaper and magazine coverage.

The original section consisted of an area of 64 conventional spaces, 8 by 20 feet, in which 99 small cars, spaces 6 feet 6 inches by 16 feet, were accommodated, allowing an additional

35 cars. At a per space cost of \$976, this represented a capital investment of \$34,000.

The popularity of the small car has continued among both students and staff and the lot has been extended to accommodate a total of 169 small cars. Both students and staff are encouraged to park in this lot, which resulted in a section of the faculty lot being released to student parking.

When a small car parking lot is being considered, the greatest gain in space is in the length of the vehicles. Therefore, care should be exercised in selecting an area that is deep enough to assure additional rows being created.

Control

The greatest degree of traffic control takes place right on the campus. The campus includes a public road that bisects it and here the college exercises control over student vehicles by agreement with the town, in addition to any control that town patrolmen might see fit to administer.

To assist in parking and traffic flow studies, four traffic meters were purchased and the data compiled through the use of these meters has been the basis for forming flow patterns.

In an attempt to simplify the administration details and load imposed upon the physical plant and business offices and to reduce the number of "appeals," the scale of fines was rescinded and the sum of \$1 applied across the board on all tickets issued. This did result in elimination of much record keeping and, as the payment of a dollar was much easier than filing an appeal and seeing the dean, this end of the paper work also diminished. But, the college student, being what he is, found a new gimmick: nonregistration of automobiles to avoid penalties for deliberate infractions of regulations. If there is no record of the car then there is no one to whom a ticket can be issued, or so the student thought. Within a short space of time more than 700 nonregistered cars appeared on campus in one day. So a special ticket was hurriedly issued — a yellow ticket carrying with it a fine of \$10 — for parking a nonregistered car on campus. Since state plates were verified by the Motor Vehicle Bureau, this quickly spoiled the fun.

When repeat violations of a more serious nature, such as dangerous driv-

ing, failure to observe stop signs, parking in fire roads, across exits, in front of hydrants, and so forth, were observed, a new green ticket was issued carrying a fine of \$10 for each offense, designated "public nuisance." Also, to remove the last vestige of challenge, a special ticket has been developed that carries a fine of \$25 for illegal use of a plate; in other words, using a plate issued to some other person.

Once the importance of orderly parking was accepted, a parking committee formed consisting of the vice president, deans of students and faculty, the superintendent of buildings and grounds, chief security officer, and one representative each from the faculty and students. This committee determines policy based upon studies and recommendations submitted by the superintendent of buildings and grounds and chief security officer and passes on appeals.

All tickets issued may be appealed. Appeals are filed on a standard form that goes first to the chief security officer for endorsement, then to the appropriate dean, or vice president in the case of a member of the administration, and then to the parking committee. If both the security chief and the dean oppose the appeal, the committee automatically endorses the rejection on behalf of the committee. In cases where endorsements are at variance, the committee as a whole passes on the appeal. The committee meets once a month and seldom has more than six appeals to consider.

With the high cost of parking in the vicinity of Hofstra and the advances in electronic equipment, the future of traffic control might well be tied to the electronic age. Perhaps in the future, parking areas and approaches will be controlled by signal lights and gates remotely operated from a central data center. This same center might also be the key to security systems, boiler rooms, mechanical systems, and so forth. From the center the operator would scan parking fields and, when a reasonable number of vacancies showed, would direct enough automobiles to fill them.

Such equipment would repay the cost of installation and operation many times over in reduced security costs, and ease and safety of parking could well become one of the deciding factors in where a student obtains his education. ■

Legal Aspects That Concern Scholarship Discrimination

T. E. Blackwell

Educational Management Consultant
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THE will of C. Edward McKinney Jr., probated on Nov. 6, 1957, included the following provisions: "I give and bequeath the sum of Fifty Thousand Dollars to Amherst College . . . to be held in trust to be used as a scholarship fund for deserving American born, Protestant, Gentile boys of good moral repute, not given to gambling, smoking, drinking or similar acts . . . All the rest, residue and remainder of my estate . . . I give, devise and bequeath unto Amherst College . . . to be held on the same trust."

Section 6 of the charter of Amherst College reads, in part, as follows: "No student shall be refused admission to, or denied any of the privileges, honors or degrees of said college, on account of the religious opinion he may entertain." In view of the provision of its charter, Amherst adopted the following resolution: "Resolved, that Amherst College declines to accept the legacy and the residue under the will of C. Edward McKinney Jr., upon the conditions which will prevent the use of the scholarship loan fund for the benefit of any of its students on religious grounds; but it will accept the same if it will not be so restricted in the use of the fund."

Since the college declined to accept the bequest in accordance with the terms of the will, the executor filed an action with the chancery division of the superior court of Essex County, New Jersey, for instructions. The case

was not decided until April 1960.¹ The court ruled that, since the fund in question must be regarded as a charitable trust, the primary intention of the donor should be implemented, even if it cannot be given effect in exact accord with all of his instructions and restrictions.

In support of this ruling, the court quoted from Scott on Trusts, sections 399, 399.2: "Where fulfillment of the specific charitable intent cannot be had, equity will, in the exercise of the power of *cy pres*, apply the property to a similar charitable purpose in accordance with the more general charitable intent. This is on the theory that the testator would have so ordained if he had realized that it would be impossible to carry out the particular purpose. By this process, the intention of the testator is fulfilled as nearly as it is possible to do."

The court came to the conclusion that the primary intention of the testator must have been to benefit Amherst College. The basis for this conclusion was the fact that he was an alumnus of that institution, that he had contributed to its alumni fund, and that he had been a regular attendant at its alumni reunions. In his memorandum of instructions to the scrivener of his will, he inserted the following: "In case Amherst College does not care to accept the gift as

¹Howard Savings Institution v. Trustees of Amherst College, 61 N.J. Super. 119, 160 A. 2d 177 (1960).

offered, then make the offer to the Massachusetts Institute of Technology at Cambridge, Mass." This suggestion, however, was canceled and removed from the consideration of the scrivener by being crossed out, i.e. a line was drawn through it by the testator.

The court then posed the following questions for its own consideration:

"(1) What would be the preferable intent of the testator if he understood that the assumed religious classification of the recipients of his trust defeated his chosen trusteeship? (2) Can it be said that, in such event, he would prefer his charity to succeed to another institution or trustee not of his selections? It is believed not.

"In the light of the foregoing, upon a finding of fact and under applicable law, it is concluded that the judgment will be entered to exclude from . . . the last will and testament of C. Edward McKinney Jr., deceased, the words 'Protestant' and 'Gentile'; and the plaintiff, as executor, be directed, by virtue of the doctrine of *cy pres*, to turn over to Amherst College the funds of the trust . . . to function in all other respects as will accord with the remaining terms and conditions of said trust." The executor of the estate has filed an appeal from this decision.²

In its opinion, the court took judicial notice of the fact that the New Jersey legislature, in 1945, had enacted a statute described as the "Law Against Discrimination." The purpose of the act was declared to be "to prevent and eliminate practices of discrimination against persons because of race, creed, color, racial origin or ancestry." The court also took notice of the fact that Amherst College was not subject to the provisions of the act, due to the following provisions of section 5 (j): "Nothing herein contained shall be construed to include or apply to, any institution . . . which is in its nature distinctly private."

The New York statute³ on this subject does not exempt nonpublic institutions. It declares: "It shall be an unfair educational practice for an educational institution . . . to exclude or limit or otherwise discriminate against any person or persons seeking admission as students to such institutions because of race, religion, creed, color or national origin."

In 1958, the New York University Law Review⁴ sent a questionnaire to 450 state supported colleges, requesting information as to the extent of restriction imposed by donors upon the use of scholarships administered by them. Two hundred thirty-nine colleges replied. Twenty-three institutions reported racially restricted scholarships, 10 reported scholarships for the benefit of individuals of a designated religious group, and 16 declared that they held scholarships restricted as to nationality. ■

The Extent of Rehabilitation in Institution Construction

Louis A. D'Amico and E. Eugene Higgins

Specialists, Division of Higher Education
Office of Education, Washington, D. C.

COLLEGE and university officials and other persons interested in the status of higher education physical facilities were provided some information on the condition of college and university buildings in a study prepared by the U.S. Office of Education, Dec. 31, 1957. A study of 2280 buildings then in use in 52 public and 59 private institutions revealed that one out of five buildings was either in need of major rehabilitation or was in such condition that it should be razed. However, the need for their space and the lack of funds to build replacements often prevented razing.

To obtain some indication of the extent of major rehabilitation (major repair and renovation) work done on college and university buildings, an analysis was made of the building rehabilitation by type of construction, year of occupancy, institutional control, function and date of rehabilitation. On the basis of the data collected, it was found that:

1. Approximately 20.0 per cent of existing college and university buildings (in this study) underwent major rehabilitation.

2. "Wood type" buildings underwent major rehabilitation by a ratio of 2 to 1 over "steel" type buildings in public institutions, and by a ratio of almost 3 to 1 in private institutions.

3. Major rehabilitation by year of building occupancy varied from 55.7

per cent of buildings in public institutions occupied before 1901 to 3.3 per cent of buildings in private institutions occupied during 1941-57.

4. Residential buildings underwent major rehabilitation at a greater rate than instructional buildings.

5. More than six out of every 10 buildings undergoing major rehabilitation by public institutions and more than seven out of every 10 undergoing major rehabilitation by private institutions were "wood type" buildings.

6. More than half of the buildings undergoing major rehabilitation by public institutions and approximately two out of five buildings undergoing major rehabilitation by private institutions had their major rehabilitation during 1951-57.

One of the main findings of this report is that the major rehabilitation of buildings has contributed to the satisfactory condition of 20.0 per cent of college and university buildings now in use. The fact that the majority of the major rehabilitation work was performed during 1951-57 may augur an increase in the major rehabilitation of higher education buildings in the future. This indicates that, in addition to making allowances for construction of new buildings in their budgets, institutions of higher education will need to place aside sufficient funds to take care of major rehabilitation work required by buildings now in use. ■

²Docket No. A-745-50, Superior Court of N.J., Appellate Division.

³18 N.J.S.A. 25-1-21.

⁴N.Y. *Edu. Law* §15 (5) (a).

⁵Shad, Patricia P., *Constitutionality of Restricted Scholarships*, 33 N.Y.U.L.Rev. 604 (1958).

BEAUTIFUL Wasatch Mountains serve as a backdrop to the main dining room at Cannon Center, where 1700 students are fed three meals daily.



Centralized Food Service Rates Student Praise at Brigham Young

Wells P. Cloward

Director of Food Service
Brigham Young University, Provo, Utah

A FEW years ago, some 1250 young men students attending Brigham Young University in Provo, Utah, started through the three cafeteria-style lines of the newly constructed food service building situated immediately adjacent to the five residence halls where they were to stay during the coming school year. The food service personnel worked feverishly, making last minute preparations to make sure that all was well and the lines would move quickly, enabling the young men to get to class on time. The hour had come, culminating the long months of planning and construction. The question in the minds of everyone closely associated with the project was: "How was it going to work?"

For a few moments the lines were long. The boys moved slowly. This was their first time through, and they did not want to miss a thing. They kept pouring in, and for a few short moments it seemed that the place would be overwhelmed. But with an ease that brought sighs of relief, the lines thinned out and the first meal was over. It worked, and everyone was thrilled and happy. Yes, there were "bugs" to be ironed out; there was "shaking down" to be done. But it worked, and almost even better than anyone had dared dream.

Now, with the addition of two more women's residence halls, occupancy of these buildings brings "family members" to be fed three meals a day at Cannon Center to a total of 1700.

These additional 470 patrons were absorbed in the feeding operation without any stress or strain to food service in general.

General Purpose

Construction of the project commenced March 22, 1957. For the residence halls the lift slab method of construction, in which the concrete floors were cast at ground level and then lifted into position, was used. Cannon Center and one of the residence halls is completely air-conditioned. Other residence halls may be air-conditioned as needed, since the basic lines and equipment already are installed.

Cannon Center is the hub of the project. Nearly three-fourths of the



Snack bar area (above) affords comfortable seating accommodations; has pleasant view of foyer and lobby. Gay decorating colors were used throughout and general atmosphere is one of pleasant dining. The actual snack bar (below) has the best equipment available. All grills, fat fryers and ovens are steam-cleaned regularly. Fire prevention equipment is conveniently located.



building is used for food service, the other fourth containing an information desk, offices, TV rooms, a living-meeting room, a recreation room with ping-pong tables, and restrooms.

In the food service area there are three serving lines, two of which move out into a large dining room seating 600, and the third line moving out into a smaller dining room seating 250. The dining rooms are so arranged as to provide outside dining service as the weather permits. A snack bar with seating for 60 is immediately adjacent to the two dining rooms. There is a central dishwashing room serving all areas of the food service and preparation.

Layout of Food Areas

The food areas as constructed were designed with objectives of getting maximum functional use, eliminating as much cross-traffic and long walking as possible, and encouraging self-service so as to make possible maximum economy of operation. In a sense, the location of the dishroom was the key to the layout.

Decision was made to have the students bus all their dishes to a central point from which the dishes could be washed and moved directly back to the feeding lines or into the snack bar. Study showed this could be done best without the use of mechanical equipment to carry trays and dishes to the dishroom. Further study showed this same dishroom could be used for washing all the pots and pans from the kitchen with a minimum of distance involved from the respective stations where they are used.

Food deliveries are made to a loading dock at the back of the building. Electrically operated roll-away doors make it possible to lock the dock at the conclusion of the day's activity. A built-in scale is in one corner of the dock, and all food that requires weighing is checked before it is moved on into the storage rooms. Immediately next to the dock on one side is a trash room, equipped for stacking all necessary cans. Live steam takes care of cleaning and sanitizing.

The food moves from the loading dock on into the building, and is either checked into the dry storage room or into one of the five walk-in boxes along the corridor, depending on the type of food being handled. From here the food products move

directly to the salad preparation room, the kitchen, or the bakeshop.

As food is prepared, it is moved out onto the lines or into the backup refrigerators or containers for hot foods. Those serving on the line are able to call for food as needed by the use of a speaker system. Ice machines are located in immediate proximity to the lines to provide ease of accessibility.

Students are permitted to come through any one of the three lines they wish. When the main "push" is over, the line serving the small dining room is closed down first, then one of the lines in the larger dining room, and finally the third line.

Although students are permitted choices of nearly all items on the menu, they are limited to the number of items they may take on the regular menu. However, they may purchase extra items if they choose. Checkers at the end of the line check off the meal tickets and collect money from cash customers.

Immediately outside the dining rooms, and near the snack bar and the recreation facilities, are coat racks which serve the needs of students and visitors coming to the Center.

Selection of Equipment

No expense was spared in purchasing the best equipment available for the food operation, but great care and study was given to purchasing only that equipment that was needed and had proved satisfactory in other operations. Purchase and installation of equipment was by competitive bid, with the Center reserving the right to choose what would best serve the need. Wherever possible, stainless steel was called for. Compressors serving all refrigerated units not self-contained are in one special room where they can be serviced easily without interference.

Sanitation

Special attention was given in the design of the building and purchase and placement of equipment to obtain maximum sanitation with a minimum effort. Floors throughout the kitchen, stock room, bakery, dishroom, dining areas, snack bars, cloak areas, and central corridor are of quarry tile while kitchen walls and parts of the dining room are of pleasing colored structural glazed tile. The dishroom and kitchen areas can be hosed down

easily. Hoods and vents are stainless steel except for the hood over the bake ovens, grills, fat fryers, steamers and kettles, which is glass with woven wire mesh.

Grills, fat fryers, and ovens in the kitchen are on wheels, making it possible to move them out easily and clean behind them regularly. Mobile racks in the walk-in boxes can be brought out and steam-cleaned as needed. Steam cleaning equipment in the dishroom area has proved to be of tremendous help in keeping equipment clean. Dish carts are all mobile and make possible the movement of dishes from the dish machine to the food lines with a minimum of handling.

Safety

Special attention has been given to encourage safety practices on the part of employees, and building materials and equipment have been planned to provide maximum safety features. Sufficient abrasive materials in the kitchen quarry tile floor reduce the hazards of slipping and falling to a minimum. Employees are taught correct technics in the handling of slicers, mixers, food choppers, knives and similar equipment, and are constantly encouraged to follow safe practices. Hoods, vents and filters are cleaned regularly. Fire protection devices and facilities are conveniently located and reminders are posted giving their location.

The total project, including the five residence halls, the central building, outside landscaping, parking facilities,

furniture, equipment, architects' fees, interest during construction, and all other expense, cost approximately \$5,532,000. Of this amount, the cost of installed kitchen and dining room equipment, including dishes, pots and pans, silverware, glassware and related items, came to approximately \$350,000.

The project was financed through loan with interest, and is repayable from the income for board and room. The amount of charge per student has been set as low as possible, consistent with sound operating management. The operation is completely self-sustaining and receives no subsidy from the university. It must cover not only the direct labor costs of the project, but also its proportionate share of the cost of general administrative supervision. Comparison of charges at other universities for board and room suggests that Brigham Young students are getting a real "bargain."

The wage cost for the food operation has run approximately 20 per cent, with food cost running approximately 45 per cent. This makes possible covering all other costs, including debt service, and still making a small margin of profit.

Special Features

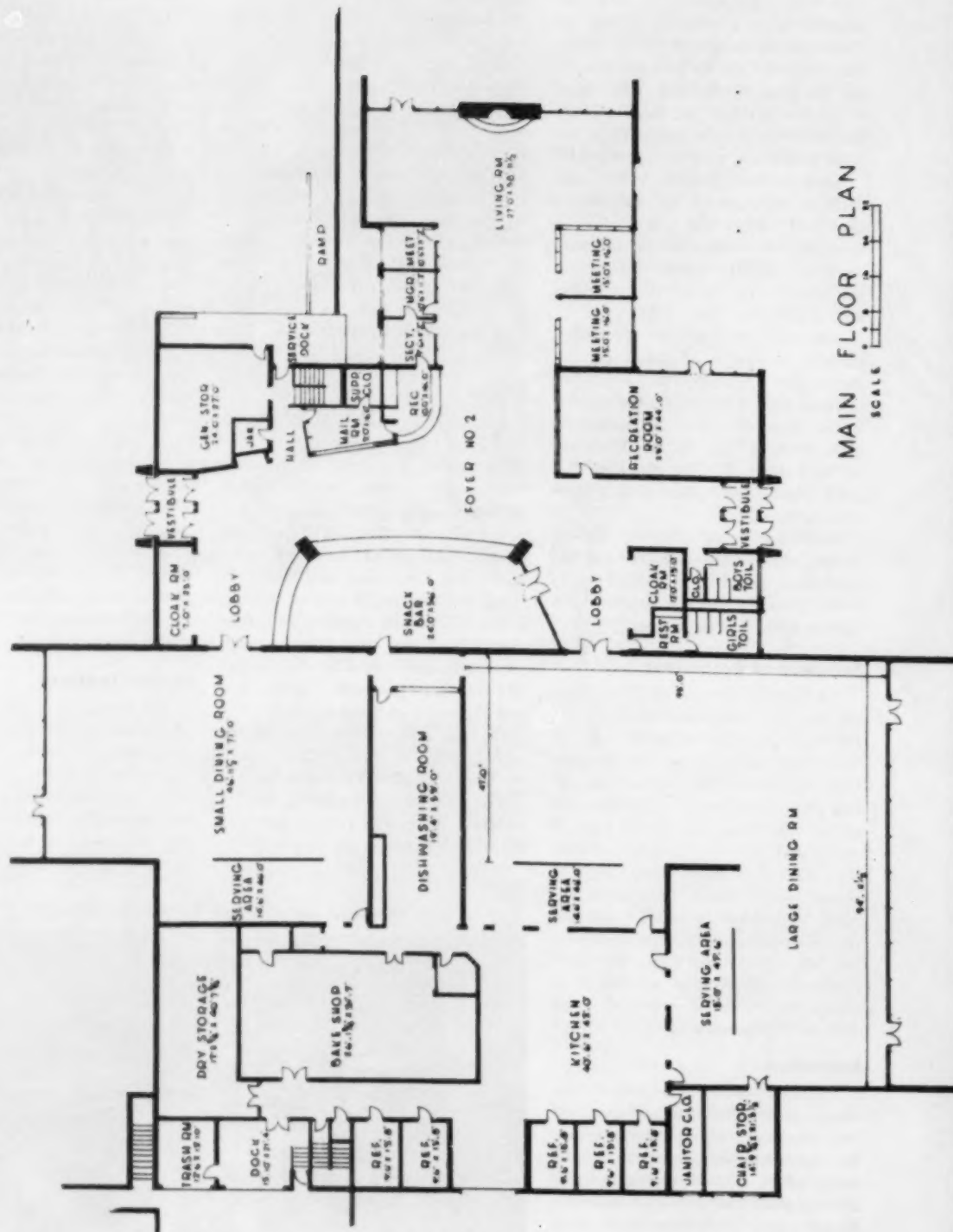
The operation of this project is part of a total centralized food service on the campus. There are five other feeding units, plus the catering, concessions, and food vending services. Central menu planning is handled under the direction of the food services

Spacious lobby is well lighted by direct and indirect lighting.



ARCHITECT
Lowell E. Parrish
Salt Lake City, Utah

BRIGHAM YOUNG UNIVERSITY
Provo Utah



MAIN FLOOR PLAN

director, in cooperation with the manager of each of the food service units and the food buyer. They meet regularly each week to plan the menus and exchange ideas and suggestions. They also discuss problems and solutions involving each of their respective operations. The consolidation of all food requirements for the total university makes possible the most favorable buying practices and prices. Inspection is tied closely to the buyers to ensure best quality food.

Other Factors

Every effort has been put forth to make the food preparation and eating areas as cheerful and pleasant as possible. Total interior decorating was done on a full-scale planned basis, with consideration being given not only to the color of walls, floors, ceilings and drapery materials, but the color of table tops, chairs, dishes and similar items. Gay colors have been used in the panels separating the food lines from the dining rooms. The ceilings are light; the structural glazed tile walls vary in color just enough to provide an extremely pleasing effect. Maximum natural light is provided through the use of skydomes throughout the building, including the dining and serving line areas. Special attention has been given to lighting, particularly on the food lines, in order to make the food displays look their best. Music is provided throughout the building, and adds much to the enjoyment of those dining. The sound system is controlled from the central desk, and programs can be interrupted to make special announcements or bring occasional news items.

Dining room tables have plastic tops and chrome legs that fold so they can be put away and the dining room used for dances or other program activities. Chairs are plastic with chrome legs and can be stacked and stored in a small area.

Glass has been used extensively on one side of each dining room, with openings out into patio areas. Every effort has been made to capture the magnificence of the mountains that tower to the east and north.

The acceptance of the facilities and service on the part of the students has been tremendous. The response has been gratifying to those who live with it, who helped to plan it and administer the program. ■



Landscaped patio area (above) has outdoor furniture for card playing and lounging. Aluminum and glass are used extensively throughout the center, i.e. entrance to lobby area. Air view (below) of Cannon Center and Helaman Halls at Brigham Young illustrates close proximity of center to residences. This affords better access to residence halls from dining areas, and is an excellent example of thoughtful planning and remarkably good space utilization.



Housing and Dining Are Coeducational

MOST of the ideal requirements of small unit housing and feeding have been met at the University of Oregon with the completion of the latest 10 unit residence building. We have attained maximum use of all building space by housing men and women in the same residence hall.

It is difficult to utilize the maximum space in most universities, but, at Oregon, men and women can be housed in any given unit in accordance with varying demands for space. Six units of women and four units of men are being housed.

All 10 units share dining facilities and lounges, and to date (the second year of this project) we have not experienced as many disagreeable boy-girl relationships as take place on most divided campuses. The first year, when we housed two



Above: Both men and girls share the basement game rooms, television and vending machines. This basement area is kept open both night and day.



As students are not assigned to eat in any given unit, a natural situation develops. There are 10 small dining-lounge areas, and these are used by students between and after meal hours for cards, informal dancing, and entertaining.



H. P. Barnhart

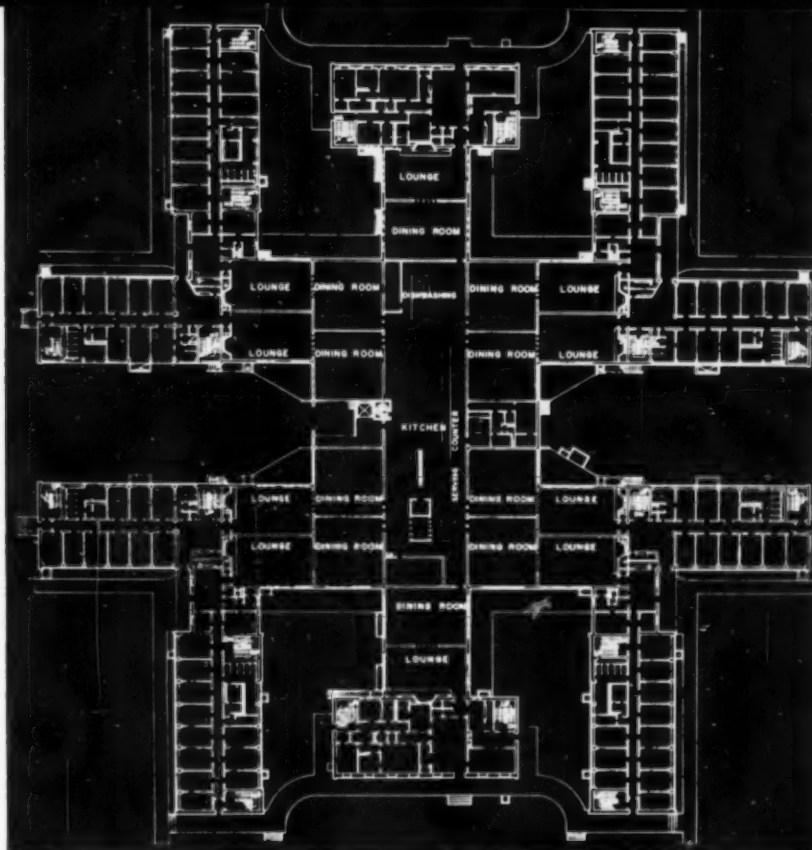
Director of Residence Halls
University of Oregon, Eugene

men's units and three women's units, the men seemed to take a protective attitude. Last year the attitude was not protective, but very natural.

The coeducational side of this program was a natural development after we had built a five-unit complex to house 330 freshman boys. At any given time, these units can be used to house fraternity and sorority groups.

We here at Oregon are happy with coeducational housing and dining arrangements. ■

Across Page and Below: Women live in six units and men in four units of Walton Hall. Oregon likes the plan.



Above: First floor plan. Below: One of the two cafeteria lines that serve 650 students. One serving kitchen accommodates all 10 dining areas.





Exterior view of Skagit Valley College's bookstore.

'Self-Service

WHEN plans got under way in 1957 for an all-new Skagit Valley College campus, it was decided that the Cardinal Bookstore (named for the school mascot) should be completely self-service. We were convinced that self-service with check-out was the proper approach to modern college store merchandising. As John M. Wilson says:¹ "Beyond question, a properly installed check-out system can provide the means to increase sales, to cut expenses, and to minimize losses from such common evils as forgotten charges, mistakes in addition, pilferage and employe temptation."

Before our conversion to self-service, customers would bring their enrollment cards to the old clerk-service store. Then, the clerk would take the card to the bookshelves, searching for the proper books. Upon his return, he would itemize the purchases at the cash register. It would take as long as five minutes to handle one customer. There was little opportunity to sell supplies, as they were not on open display.

The old system was cumbersome, expensive in time and labor, and there existed a very definite lack of control.

The new Cardinal Bookstore serves a student body of about 400 in a selling area of 1200 square feet, with 600 square feet of storage space. This is in keeping with the expectation of serving an eventual student body of 1000 (store designers suggest at least one square foot per student).

The new store is designed to control self-service traffic, with two doors — entrance and exit. There is no inside knob on the entrance door, so exit must be made via the check-out counter at the exit door.

"L" Shaped Check-Out Counter

The check-out counter for self-service is "L" shaped with the traffic flow to the left of the cashier, utilizing right-hand operation of the cash register. Our "L" is 30 inches high, 40 inches across, and 7 feet long (many advocates of self-service prefer a 5 foot counter).

A receipt-printing cash register is used, giving better cash control and a receipt of purchase for the customer. In the event of refunds, a receipt is necessary as proof of purchase. A locked-in total is also available for determining sales and proving cash at the end of a day's business.

A second check-out lane is provided for rush periods. About 60 customers

an hour can be checked out at each cash register. The check-out counter is adjacent to the exit door. The impulse to buy pickup goods comes before the check-out area is reached.

Books and other personal belongings must be left outside (in special racks) before entering the store. As a result, the customer pays for everything he is carrying as he leaves the store. During rush periods we have clerks ready and willing to help customers when needed. The experts suggest that, in self-service, the customer should not be approached until it is apparent that he is in need of help. As Mr. Wilson has reported:² "Many times the merchandise sells itself better than the clerks can. It's easy to sense when a customer needs service, so we leave them alone until they need us." Our clerks wear red jackets so the customers know where to go for assistance.

A good directional system is needed in a self-service bookstore. Upon entering the store, each student is provided a book list, with course numbers arranged in the same order as their physical location in the store. Large shelf signs give course numbers for easy identification of texts and materials.

2. *Ibid.*, p. 4.

¹Wilson, John M.: *The Check-Out Lane, Pathway to Greater Profits*, National Cash Register Company, Dayton, Ohio, p. 1.

in College Bookstores Is Here To Stay'

Delbert E. Tillotson

Faculty Manager, Cardinal Bookstore
Skagit Valley College, Mount Vernon, Wash.

All merchandise is individually priced. Books are priced with charcoal (for easy erasing in the event of returns). Other merchandise is marked with gummed labels. Much merchandise is prepriced by manufacturers, particularly items packaged to our specifications. Individual pricing is essential in self-service. The cashier can't memorize all prices, so there is no chance of argument with prepricing. The pricing methods used protect against "price-switching." Much merchandise is prepackaged in colorful and informative display (even our pens, erasers, pencils, artist's brushes, and other similar merchandise are prepackaged). In addition to minimizing pilferage, prepackaging protects against dust and dirt.

A recent survey of college stores on self-service indicates an 8.3 per cent increase in volume after conversion — over and above enrollment increase.² Some stores report gains of 50 per cent and more upon conversion to self-service. In the case of the Cardinal Bookstore, sales are up 30 per cent in the first year of self-service operation. Impulse sales have been a large factor in the increased volume.

Under self-service a sales staff is

more effectively deployed. The number of employees isn't necessarily reduced, but they are used to better advantage than in clerk-service. Sales persons are spotted at strategic points to render assistance when needed. All sales are recorded by the cashier, freeing the sales clerk to sell.

Many customers shop self-service stores because they know they can get what they want and can get out quickly. They need not compete with one another for a clerk's time. This is particularly important in the college store where much shopping is done between classes. In our store, a student with a full semester's books and supplies can be checked out in less than a minute.

No "Favoritism"

Better control is evident. There is a centralized handling of money at the check-out stand. Each customer gets a receipt for his purchase. A particular problem under clerk-service is the handing of money to a clerk too busy to ring up the sale at the time. There is little opportunity for "favoritism" with a cashier system. With clerk-service, friends or classmates might be given "reduced" prices. Self-service with prepriced items eliminates the possibility of selling at incorrect

prices and a loss for the bookstore. Mr. Wilson calls the check-out a strong psychological barrier to shoplifting.³ Manufacturers have helped self-service stores reduce shoplifting by carding small items such as ball point pens and erasers. Further, the National Association of College Stores urges its members to follow the retail method of inventory as a means of revealing the extent (and sources) of inventory shortage.

The college bookstore customer likes self-service. He has grown up in an era of self-service. He likes to wait on himself. He appreciates the speed in being checked through the store.

Self-service is here to stay in the college store. More than half the member stores of the National Association of College Stores are using it and more are converting. Small and large stores alike can use it to advantage. College stores not on self-service cite these two problems most frequently as a deterrent to conversion: a floor plan not conducive to self-service, and pilferage. But bookstore designers contend that any store can be converted to self-service operation. Pilferage is undoubtedly more of a problem under clerk-service. ■

²Wilson, John M.: The Trend to Check Out, *The College Store*, March (1957) p. 28.

³*Ibid.*, p. 36.

How Important Unions Can Be

Louis Day Jr.

Director of Public Affairs, University Museum
University of Pennsylvania, Philadelphia

IN TERMS of planning a college union and a union program, we all have been guilty of looking at the undergraduates as a mass of young people who are all the same age, look alike, dress alike, act alike, and think alike. Is this the kind of program "they" want, we ask ourselves. How many will come?

We must think of these undergraduates as individuals, whether there be 300 or 3000. And we must think of the college union not merely as the common meeting place for entertainment but as the laboratory for the development of these individuals, where they can find the tools and the opportunity for creativity.

Each one of us, whether we realize it or not, has a particular talent or bent. It may be artistic creation; it may be the ability to organize; it may be the ability to lead. Whatever these talents, they need a laboratory in which to develop. The union should be the laboratory for such activity. The purpose of a laboratory is for experimentation and for learning by doing, which is the only way to gain experience.

Of all of the words and phrases that have been applied to the union, I like the word "laboratory" best. Things happen in a laboratory, particularly when people come to work there voluntarily. And the function of a laboratory is to produce results. It is not merely a place to while away the time.

The time when the student is not in class is often referred to as "the leisure hour." "Leisure" is an over-worked word today. It has come to mean a freedom from something we do not want to do. It starts on Friday afternoon and ends on Monday. It has come to mean sitting in the trop-

ical sun at age 65, free from worry and drudgery. The dictionary defines "leisure" as "the opportunity afforded by exemption from occupation." It might be well for us to think of the union as the one real place on the campus where *opportunities are afforded*, opportunities for the student to do what he really wants to do. If he has a choice of activities, he will pick the one which stimulates him most and in which he is happiest.

How important the union is or can be in the cultural development of a student! Too often these days we read of businessmen who have narrow cultural interests. The specialization of business life has made many of them unimaginative and uninteresting people.

In a recent highly successful experiment on the University of Pennsylvania campus, the Bell Telephone Company of Pennsylvania, concerned about the supply of broadly educated young executives who would eventually be in the top policy making positions of the company, sponsored an educational program to broaden their knowledge and interests.

These rising young businessmen, many the products of business and engineering schools, were plunged for 10 months into literature, art, music, architecture and other humanistic courses in an effort to develop habits of mind considered essential for the business executive. Their specialized educations at the college level had kept them from being subjected to the pleasures and values of the liberal arts. They had little interest in people who were not in their own field of endeavor.

After the first class was "graduated," according to *Time* magazine, one student admitted that he had had "a kind of void" in the arts, had become interested enough to subscribe to a print-of-the-month club,

and to buy some originals of his own. What had he hung on his walls before? "Mirrors."

This educational venture, which started in 1954, is no longer an experiment. It is still going strong and other industrial concerns are sending their young executives to the institute in the hope of broadening their interests and knowledge.

At the college level, too, specialization of curriculum tends to separate students and to keep their interests narrow. The engineering student or the business major, for example, can become so specialized in his interests that he is unaware of the rewards of group activity or the satisfactions of cultural endeavor. This, I believe, is one of the ways in which the union can play a vital part in broadening and developing the student.

The union must, through its program, seek out the student. He can, of course, spend his four years on the campus and come in to the union only to buy his books or to drink a cup of coffee. If the union is the exciting and stimulating center of extracurricular life on the campus and not just a "service station" dispensing food and supplies, the student will find his way there.

In recent years, directors of campus centers have viewed with alarm the growth of recreation areas and lounges in residence halls, fearing they would serve as competition. I cannot believe that a game room, a television set, and comfortable chairs will compete with the kind of union to which I refer. The program and its effectiveness are the keys to the successful union.

I cannot recommend too highly the periodic self-evaluation of the union program. It is not easy to look at ourselves in the mirror. Making changes means extra burdens and the sacrifice of time. But, if the union is to perform its role effectively, a role that no other department of the university is qualified for, it takes a lot of work, a lot of ideas, and a lot of time.

If the union is the vital, stimulating force it ought to be, and this can be achieved mainly through its program, it will have fulfilled its obligation — that of being an integral part of the educational picture, essential to completeness. ■

From a paper presented at the conference of the Association of College Unions, Bloomington, Ind., 1960.

Robert Gilmore
Controller, California Institute of Technology
Pasadena

ARE EQUIPMENT ACCOUNTING RECORDS NECESSARY?

WHEN examining the various purposes or functions of equipment accounting records, it is important to distinguish between physical or operating control of equipment assets, on the one hand, and accounting control on the other hand. To amplify these terms, we might say that physical control involves proper safeguards for housing, removal and authorization for modification, conversion or dismantling. Accounting control concerns recording acquisitions and disposals, with some arrangement for periodic verification of the physical existence of the equivalent units, and reporting upon these transactions.

Accurate cost accounting requires a plant ledger or equivalent unit equipment inventory record. In a manufacturing process, for example, the assignment of costs to the end product depends in part on a record of the equipment used in the production of

the particular end product, showing location, classified by function, department or cost center. As we carry this concept into the college we find that the end product is a mixture of instruction and research.

Let us assume that the typical college expenditure for instruction and research is 70 per cent salaries and wages, 20 per cent materials and expendable supplies, and 10 per cent acquisition of equipment. Before we examine the cost accounting refinements for the 10 per cent, perhaps we would gain perspective by looking first at the 90 per cent, bearing in mind the nature of the end product.

Salary cost distribution is an aggregation of reasonable estimates. The hour-to-hour variations in the activities of the academic staff are not accurately recorded nor are these variations in activities centrally controlled. As we look at the 20 per cent fraction, representing materials and supplies, we find a little more accurate cost assignment. Withdrawal of chemicals,

From a paper presented at the annual meeting of the Western Association of College and University Business Officers, 1960.

beakers, wire and what-have-you, if intended for use on a particular project, will be charged to that project.

However, a significant portion of materials withdrawn or purchased as departmental expense will benefit the indefinite mixture of instruction and departmental research. I suggest that the accuracy of assigning costs to instruction and research depends upon the care and reasonableness with which 90 per cent of the costs are estimated. Therefore, it seems inconsistent to establish costly routines in order to record an inventory of equipment assets for cost refinement purposes.

Equipment inventory records provide comparative data for reference when considering the purchase of new or replacement equipment. We will all recognize the validity; we may question the weight or importance of this factor, in justifying detailed equipment accounting records. The files of the purchasing department or those of the academic department may readily produce adequate information from earlier equipment purchases.

The plant ledger provides the basis for distribution of depreciation expense. This use of the plant ledger primarily concerns commercial or industrial activities. However, there is a counterpart in the use allowance for facilities that is recognized in indirect cost computations. Applicable regulations do not require detailed equipment records.

Management's Responsibility

The plant ledger provides a basis for property accountability. In manufacturing enterprises the proper assignment and use of production equipment is highly important and may mean the difference between profit or loss. Therefore, central management usually reserves to itself the responsibility of determining or authorizing the disposition or transfer of capital assets. Ordinarily, therefore, a request to remove a piece of equipment to a different location, to dismantle it, to modify it, to sell it, or to abandon it requires administrative approval before the proposal may be carried out.

In the college situation, however, the lines of authority so essential in industry would be inappropriate. As to the expenditure of his time, a staff member need not request the permis-

sion of an administrator to spend additional time following up some new idea developed in a research project. Neither will an administrator ask him if he really needs that much wire to build the gadget he has in mind, nor question whether the gadget is really necessary in the first place.

By the same token, if a piece of research equipment is to be cannibalized, or is to be built into a black box, the decision has effectively been made once the staff member has determined to his satisfaction that this would be a good idea. It is necessary to note the exception — that property to which title does not vest in the institution may require an approval by the sponsor for disposition, and in any event the transaction needs to be recorded.

The plant ledger provides information useful and necessary for income tax returns and for property tax assessment purposes. However, these requirements, although commonplace in business, are absent in the college situation.

Equipment inventory records are valuable for insurance purposes, providing valuable information useful in assuring adequate coverage and information useful in formulating claims in the event of loss. Here again, we can all agree upon the value of this type of information. The difficult question is whether this value is sufficient to warrant equipment inventory records. I am persuaded that casualty insurance coverage can be arrived at satisfactorily on an over-all basis, coupled with memorandum listings of sensitive high-value items for specific coverage.

Property records provide a convenient reference for the determination of gain or loss upon the disposition of an asset. The college business officer has an obligation to write off equipment disposed of. With detailed equipment records, this task can be done in an orderly and thorough manner. Periodic physical checks will indicate the absence of particular items that have been either transferred, modified or actually disposed of. Further inquiry will then disclose whether a write-off is called for. A satisfactory job can be done, even in the absence of detailed equipment records; admittedly, not with the same thoroughness.

A program is essential for continuing education of departmental person-

nel as to the importance of notifying the business office upon disposal of equipment. Purchase of new equipment frequently gives a clue as to a trade-in, leading to a write-off. Building rehabilitation commonly is attended by equipment abandonment and write-off. Under these circumstances, the original cost can be discovered only by references to the documentation of the original purchase. A program of equipment tagging serves a useful purpose.

Equipment inventory records provide a basis for control reports. This is a generalized comment found in accounting literature that is a corollary of centralized authority for movement of equipment. Where authority essentially rests with the academic staff member or possibly in the department, the need for routine reporting of equipment on hand and equipment transactions appears to diminish.

More Harm Than Good?

We may question very seriously whether equipment accounting records are necessary and desirable. It certainly is not axiomatic. If we fail to examine the basic needs for this costly bookkeeping and fail to put the proposal in its proper perspective, we may actually harm that which we are most highly charged to preserve, namely, the instruction and research program of our institution. How? Why? Because in order to maintain satisfactory equipment accounting records it is necessary to impose a feature of physical control that is not otherwise useful, namely, the reporting and recording of the physical movement of equipment units from one location to another, usually in the same building or department.

It is a fallacy to assume that the establishment of elaborate equipment accounting records will improve the truly essential features of sound operating controls. These essentials more appropriate to our institutions can be assured with a minimum of accounting controls by (1) alert good management in the academic department, where we often find valuable equipment already closely controlled in view of scarcity of funds for equipment additions, and (2) a strong liaison with the administration to promptly record retirements, trade-ins or abandonments. ■

The Expanding Role of Institutional Research

W. Hugh Stickler

Director, Office of Institutional Research and Service
Florida State University, Tallahassee

THE days of simple operations in colleges and universities are over. Enrollments are skyrocketing, costs are mounting by leaps and bounds, programs are expanding, curriculums are proliferating, research is waxing, competent faculty members are in low supply and high demand, and operational programs have increased both in number and in complexity. A new look at objectives must be taken, new policies must be formulated, new plans must be developed, new administrative procedures must be employed, and new evaluative techniques and devices must be put into operation.

Operating a college or university today is an infinitely complicated job. In order to operate effectively institutions of higher education need all the help they can get. At least a part of this help is forthcoming through self-studies in the form of institutional research.

As discussed here, institutional research refers to research that is directed toward providing data useful in making intelligent administrative decisions and necessary for the successful maintenance, operation and improvement of a given college or university. It includes the collection and analysis of data used in preparing the budget, in planning new buildings, in assigning space in ex-

isting buildings, in determining faculty loads, in admitting students, in individualizing instruction, in planning the educational program, and the like. It will facilitate efficient operation but is also needed to promote qualitative improvements.

Institutional research may be either basic or applied. In practice it is usually applied; it deals primarily with the ongoing operational problems of the institution.

Interest in institutional research is growing among the colleges and universities of this country. The literature in the field is expanding rapidly. During each of the past several years, institutional research groups have met in Chicago at the time of the National Conference on Higher Education, sponsored annually by the Association for Higher Education. At each of these meetings attendance has far exceeded expectations.

Enthusiastically received have been the services of the Office of Statistical Information and Research of the American Council on Education and the Clearinghouse of Studies on Higher Education (including the publication, the *Reporter*) of the U. S. Office of Education. Both the 1959 Institute on Institutional Research, sponsored jointly by the Western Interstate Commission for Higher Education and Stanford University,

and the 1960 Institute on Institutional Research, sponsored jointly by the Southern Regional Education Board, Florida Agricultural and Mechanical University, and Florida State University, enrolled more than twice the number of persons anticipated.

Numerous institutional research agencies have been established in recent years. Through institutional research an increasing number of institutions of higher learning are finding ways and means of identifying and analyzing some of their problems — of knowing themselves better — so that they may improve their programs and operations and plan intelligently for the future.

The volume of institutional research undertaken by a given institution varies from none to a substantial amount. The character of the research runs the entire gamut of educational problems. The office of institutional research and service at Florida State University provides, as time and resources permit, services to the president's office, the board of control, the office of the dean of the faculties, the Council of Academic Deans, the faculty, graduate students, state agencies, the public schools of the state, and other institutions of higher education.

Florida State studies made over the years fall into such categories as:

(1) administrative problems and procedures, (2) budgets and factors related to budgets, (3) class size analyses, (4) operational costs and factors related to costs, (5) curriculum, (6) degrees awarded, (7) enrollment analyses and projections, (8) grading practices, (9) instructional staff, (10) faculty salaries, (11) space inventories and space utilization, (12) student ability studies, (13) student characteristics and backgrounds, (14) student costs, (15) student progress, (16) faculty loads, (17) time utilization, (18) studies of transfer students, and (19) miscellaneous studies. Our institution's research agency always has a long backlog of work waiting to be done.

Florida State University may or may not be representative. We refer to it here merely to illustrate the variety of problems falling within the scope of institutional research. Each institution should determine and attack its own problems to serve its own purposes.

Institutional research reports run the full gamut of sophistication. Some are so informal that they are reported orally to the president or another administrative officer. The ultimate in simplicity of reporting probably came from a director of institutional research in a state university who said, "I worked on the problem for three months and the answer was No! It was as simple as that." Some institutions have never published an institutional research report, nor do they intend to do so. Rather, they think of institutional research as being for their college or university and not for public consumption.

Use Variety of Forms

The typical institutional research agency, however, uses a variety of forms of reporting. In some cases the report is informal, possibly oral. In other cases the report is simple — a table, a graph, a chart, a page or two of information. Most often, the report is made in typed or duplicated copy form and is distributed to those persons within the institution to whom the new information is likely to prove most useful. In still other cases — usually few in number — the findings prove to be of such value that they merit sharing with the profession. Such reports are then published, in full or in summary form. The publi-

cation outlet may be a book, a monograph, a "house organ" type of publication, or an article in a professional journal.

Two recent studies, one by Hall T. Sprague¹ and the other by W. Hugh Stickler,² reveal that, organizationally, different colleges and universities provide for institutional research in different ways. Some schools do little or no institutional research and therefore have no formal organization concerned with it. Institutional research in most institutions is still decentralized. In these institutions officers, faculty and staff members, and committees participate in the self-study processes.

In a substantial and increasing number of colleges and universities, however, institutional research is performed, coordinated and reviewed by institutional research agencies. In these instances each agency has a full-time or part-time director and a staff consisting of one to six persons. Not infrequently institutional research agencies are assisted by institution-wide advisory committees. In general, these advisory committees serve highly useful functions in the over-all operations of institutional research programs.

Without doubt, the current trend nationally is toward the centralization of institutional research functions. The advantages of such an organizational arrangement are substantial. It is my observation that colleges and universities that have identifiable and ongoing institutional research agencies are turning out more and better institutional research information. This applies to information that is both "routine" or particular, and to information that is both repetitive in nature or discrete.

In developing a program of institutional research it is well to keep in mind several guiding principles. Among the more important of these principles are:

1. *Institutional research must be planned.* Crucial issues must be identified, priorities must be assigned, and research projects must be designed and conducted.

2. *Responsibility for the direction,*

coordination and review of institutional research should be centralized. Dr. A. J. Brumbaugh notes: "The lack of central coordination is likely to result in wasteful duplication or costly oversight of needed studies."³ Only in a recognized institutional research agency can a unified and comprehensive program of institutional research be developed and made to function effectively.

3. *The executive officer of the institutional research agency should report to a major institutional officer, preferably the president.* Many research projects will deal with major administrative problems and all or nearly all will have institution-wide significance. High administrative placement will give the institutional research agency the status it must have in order to gain access to the multifarious raw data it will need in pursuing its research program.

Helpful in Many Ways

4. *An institution-wide advisory committee should assist the institutional research agency in carrying out its responsibilities.* Such a committee can be helpful in identifying and screening problems, designing research projects, assigning priorities, and interpreting the work of the institutional research agency to the rest of the college or university and its constituency.

5. *In planning and conducting institutional research projects there should be wide participation by faculty members and administrative officers.* This principle should apply even though the major responsibility for institutional research is centralized. Institutional research offices are not agencies unto themselves. Widespread staff participation familiarizes the individual with the problems of the college and prepares him to deal realistically and effectively with the research findings.

6. *Institutional research must be adequately financed.* Institutional research agencies are service agencies. Their effectiveness is to be judged in terms of the volume and quality of the services they provide. If they do their work well, adequate financial support is justified and should be forthcoming. ■

¹Sprague, Hall T.: *Institutional Research in the West*. Boulder (Colo.): Western Interstate Commission for Higher Education, 1959.

²Stickler, W. Hugh: *Institutional Research Concerning Land-Grant Institutions and State Universities*. Tallahassee (Fla.): Florida State University, 1959.

³Brumbaugh, A. J.: *Research Designed To Improve Institutions of Higher Learning*. Washington: American Council on Education, 1960.

Combine Your Purchase Forms!

R. T. Brown

Purchasing Agent, Georgia State College, Atlanta

HOW can we improve our purchasing procedure? Can any of our forms be combined or eliminated? Would a change be accepted by the using departments?

These and many more questions entered into our thinking as we took our first look at the Purchase Requisition and the Receiving Report being used at Georgia State College. The idea of combining the forms was very attractive. If we could combine the two forms into a new form better suited to our operations, we knew that something good would result.

How the Form Developed

The original idea for a combined Purchase Requisition-Receiving Report arose from the dissatisfaction expressed by the using departments. Departmental personnel did not like typing a requisition and then typing the same information on a receiving report. Further support for the idea came from our wish to reduce handling time and to help the accounting office maintain better budget control.

If we could combine the purchase requisition and the receiving report, we could eliminate typing the same information on two forms. First we listed the information that could be used on both forms, and then we made a rough copy, arranging the information on the list in its proper place.

Proper carbon placement constituted a real problem. Some information, such as requisition number, had to appear on all copies of the new form. To help with this problem we called a representative of a company whose business is manufacturing forms and he offered suggestions about carbon placement.

The next step was to adapt the form to our present operation. We found that another copy of the pur-

chase requisition was advisable. Our purchase requisition had consisted of three parts: one for the purchasing office, one for the receiving department, and one for the requisitioning department.

It seemed wise to give the accounting office a copy to enable it to encumber the purchase requisition at the time it was received for budget approval. Previously, this office had checked the department's budget, approved the purchase, and waited until the purchase order was written by the state purchasing department and a copy returned to the accounting office. When a copy of the purchase order was received, it was then encumbered against the department's budget. This practice did not give a realistic picture of a budget at any given time. An additional copy of the purchase requisition would eliminate this situation.

Our next step was to call in several department heads and personnel under their jurisdiction for their ideas and opinions about the proposed combination. From these persons came the suggestion of adding a third copy to the receiving report. This would provide each department with a record of having received items requested.

We then had a proposed seven-part form containing all necessary information for the requisitioning department, the purchasing office, the state purchasing department, and the accounting office. The form was made ready for the printers.

How It Fits Our Operation

Our new form is made of seven parts with six one-time carbons and with perforations under the joint tab for easy removal of one or all sheets. The first four copies are the purchase requisition. Each copy is identified

by color: original (white), purchasing office; second copy (pink), receiving department; third copy (yellow), business office; fourth copy (green), requisitioning department. The last three copies are the receiving report. Each copy is also identified by color: original (white), business office; second copy (blue), purchasing office; third copy (salmon), requisitioning department.

The following information appears on all copies: requisition number, date, charge (supplies or outlay), delivery date requested, quantity ordered, unit, description of items, and instructions.

The tab is lightly glued between the third and fourth copies of the purchase requisition. This feature enables the purchasing office to remove the requisitioning department's copy (green) and the complete receiving report as a unit. This unit is returned to the department and is held until it has received the requested items.

Effectiveness of Form

The first realized effect was the reduction of time and work spent in processing purchase requisitions and receiving reports. This has been more obvious with the receiving report.

We are realizing better budget control; we are better able to give any department a more nearly accurate figure concerning its budget at any given time. This was not true in the past.

Prior to the development and use of the Purchase Requisition-Receiving Report, we experienced difficulty in getting departments to put the requisition number on the receiving report. This delayed our matching it with the purchase order and processing it for the accounting department's use in paying the invoice. This delay has been completely eliminated. ■

The Campus Kitchen of the Future

Theodore W. Minah
Director, Dining Halls
Duke University, Durham, N. C.

IN THE next 10 years our institutions will be subjected to many stresses and strains. These will be brought about by:

1. Increased college and university student enrollments.
2. Increased costs of labor, food and supplies.
3. Competition within the institutions for the limited funds available for new construction. We shall have to prove our value to the institution if we are to be the recipient of any of these funds.

Some of us will have to get along with our present facilities and meet the demands placed upon us by modifying the equipment and spaces and making our operations more efficient. Those of us fortunate enough to get new facilities or equipment must be sure that we ask for the right tools for the job.

Let us consider this problem from the following bases: (1) the purpose of the campus food services; (2) the management phase of the operation; (3) the layout and design of operation; (4) the atmosphere of our dining halls, and (5) the long-range plan.

Our Purpose

As I understand it, our mission is to serve high quality foods in a pleasant and refined atmosphere at a price that the students and faculty can afford to pay.

The dining halls are to be an integral part of the university life and

contribute their share to the social education of the students. Colleges are recognizing more and more how much we have to offer in this important phase of social education, and those persons who are charged with the responsibility of planning food services should bear this in mind.

Each Has Own Ideas

A food service that might appear to be the very essence of efficiency might conceivably have another essence when viewed in the light of a college administration bent on providing a cultural atmosphere for its students. The average term of office for a college president is about four years, and all of us have found from experience that each one has his own ideas about what constitutes a cultural environment.

With the present emphasis on excellence in education, the college dining halls will be expected to provide an atmosphere that contributes something to the over-all educational environment. This is not new; as a matter of fact, the principle has always been used at Oxford, Cambridge and most of the old European universities.

Many universities are operating or planning dining halls in which student-faculty associations are encouraged by having faculty members present at meals. In some places the "high table" is being revived.

It has been my experience and observation, however limited in scope, that the trend in many colleges is to provide cafeteria service for at least a part of the meals and that, when

table service is provided, it is by plate service rather than family style.

Increasingly large numbers of schools are giving some selection of foods even when the meals are served cafeteria style on a contract board basis. It is gratifying to find that meals can be served in a gracious manner even when cafeteria service is used.

Too, there is a marked trend toward coeducational feeding.

If campus food services are to be so operated that high quality food may be served at prices the students and faculty can afford to pay, there must be a high degree of efficiency in management. We have learned much from commercial hotel and restaurant operations that we have put to good use.

Prices Going Up

The cost-of-living index shows that our food prices are continuing to climb at the rate of 2½ to 3 per cent a year. In addition to that fact, labor costs keep rising with the help of unions and with legislation that provides minimum wage laws in most states and in the federal government.

Improvements will have to be made in the control of food, labor and non-fixed costs. There will be more comprehensive studies of every phase of our operations, such as:

1. Flow charts of customer traffic showing peaks and dips.
2. Break-even graphs showing projections of profit and loss in relation to the volume of business, or at various times of the year.

(Continued on Page 84)

From a paper read before the National Association of College and University Food Services, 1960.

Take the **TOLEDO** Route

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Dishwashers by Toledo offer exclusive Add-A-Tank design. Selected Add-A-Tank units go together to give you the length, capacity and specific features you need now . . . allow for future expansion. Capacities from 4000 to 15,000 dishes per hour. 23½" conveyor handles largest trays. Electric Water Level Control. Electric Final Rinse Control—reduces rinse water and rinse agent consumption.

Choose from the complete line! Get the dishwasher that suits your needs *best*. Every size and type of Toledo Dishwasher is designed to deliver top efficiency and reliability in the service for which it is to be used . . . can be counted on to have the most advanced features to streamline kitchen service and cut costs. There is a Toledo Kitchen Machines Dealer near you, whose specialized experience and knowledge are yours to draw upon in solving your dishwashing problems. Call him in soon, or write to us for complete catalog information.

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Hi-Speed Choppers . . . Powerful, heavy-duty designed. Outstanding in performance and appearance. Full range of models from ½ HP to 5 HP.



Dispensers . . . Heavy-duty for fast, trouble-free operation. Full choice of sizes from ½ HP up to 3 HP available in a wide selection of cone sizes.



Peelers . . . Offer fast, double-action peeling with abrasive on both disc and cylinder. Low waste. Portable and cabinet type.



Hi-Speed Mixers . . . Feature positive gear drive; clean, efficient operation. Model TM-20 (20 qt.) shown. Also 30 qt. and 60 qt. sizes.

(Continued From Page 82)

3. Detailed studies of the exact duties of each employe during every hour of his working day.

4. More detailed studies of food costs, which include costs of labor and other expenses directly applied to food.

5. Studies of standards that are to be established and maintained by employes and in their products.

6. Analyses of operating costs, other measuring devices being used than the standard per capita costs or food and labor cost percentages.

7. More use of automatic tabulating and record keeping machines. It is a fact that the concept of automation will change our methods of management.

8. Sales volumes will be studied more closely in relation to the work productivity of each employe. I recommend that we compare our employe productivity in volume of sales with that of a sales person in a supermarket. Perhaps we could learn by use of supermarket methods.

9. With equipment costs rising, we shall need to keep better records:

from the original cost to maintenance costs during the life of the equipment.

10. We shall need to make time studies on the use of one type of equipment in relation to other pieces.

11. We shall want time and motion studies of employes and more experimentation with the efficient placement of equipment.

12. There will be need for better utilization of equipment through improved menu planning.

13. New studies on exact work units performed by each employe will be required; also analyses of these work units to establish basic performance standards of productivity. Our kitchens are manufacturing plants, and we can use many of the control practices of industry.

14. We shall enlarge our training programs for everyone in the organization including management. Nor shall we leave it there, but we shall follow up to check the results of this training.

15. We shall place greater emphasis upon the importance of the supervisory staff. There will be an improvement in supervisory technics and methods.

16. We shall become a little more realistic about the potential volume of our business and become more aggressive competitors for the business that rightfully belongs on the campus.

The layout and design of our kitchens will be made with the prime objective of obtaining the maximum productivity from each employe.

Materials Within Reach

Arrangements of equipment, work spaces, and traffic aisles must be made in such manner that the employes can perform most of their functions within a small area with their materials for working within easy reach.

All spaces, both horizontal and vertical, must be utilized to a maximum capacity. We shall realize that we work with a fourth dimension—that of time.

Equipment will be multipurpose in use and designed to meet the specific needs of the user. All working equipment will be adaptable to the proper working height and depth for the individual employe.

Old and obsolete equipment will be replaced with new labor saving equipment, designed in such way that it can be easily cleaned. We shall give more attention to the sanitation and health factors involved in the de-



This intricate arrangement of lights, drapes, spare sets and counterweights presented many special problems solved by Clancy engineers in designing and installing this modern stage.

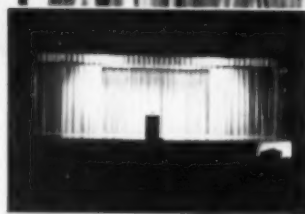
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STUDENTS...**

▲ **NORTHEASTERN UNIVERSITY'S** new \$1,500,000 Graduate Center serves more than 3,000 graduate students in the Boston area. The new building includes only the most modern equipment.

▲ **A MODERN SCOTSMAN ICE MACHINE** solves the ice supply problem. Here, Richard Prendible, assistant cafeteria manager, scoops up pure and perfect Super Flakes from the handy bin. ▶

**USE A HIGH-PRODUCTION
SCOTSMAN
ICE MACHINE!**



● The 3,000 students at Northeastern University's magnificent new Graduate Center in Boston never worry about having enough ice for refreshing cold drinks... not with a modern **SCOTSMAN Super Flaker** on the job in the cafeteria!

The convenient automatic ice maker serves up a constant supply of perfect flaked ice to meet many food and beverage needs. Using ice for attractive display of salads, cold plates, butter and chilled desserts, for example, increases selection of such items and keeps them freshly appetizing as well.

Cuts ice bills 90%. Best of all is the amazing low cost of the ice produced... **SCOTSMAN Super Flakers** make a full hundred pounds for as little as 8 pennies! This represents a big money saving of up to 90% under the cost of having ice delivered!

SCOTSMAN Super Flakers keep themselves full of hospital-pure ice automatically. A flick of the switch starts a continuing flow of ice into the self-contained, stainless-steel storage bin. When the bin is full, a

thermostat automatically shuts the machine off; as ice is removed below the thermostat level, the machine turns itself on automatically to fill the bin.

A model for any need. Whether your students number 300, 3,000 or 30,000, there are **SCOTSMAN** Ice Machines that are just right for you.

You can select a *Super Flaker* from among 24 different models, producing from 100 to 4,000 pounds per day. For moderate ice requirements, select a **SCOTSMAN** with a built-in ice bin. For large volume needs, choose a continuous-flow model with a companion *Super Bin*.

Or, if you prefer to use the cubed type of ice, choose from among eight **SCOTSMAN Super Cubers** that make from 50 to 500 pounds of big and solid, long-lasting ice cubes per day.

SCOTSMAN Ice Machines are easy to install, require only routine minimum cleaning, are as dependable as a standard home refrigerator. Wouldn't *your* school or college like to get the facts on **SCOTSMAN**?

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YES! Please send complete details, including new "Ideas on Ice" booklet on Scotsman Ice Machines.



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MAIL TO: **SCOTSMAN ICE MACHINES**

Queen Products Division of King-Seely Thermos Co.

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EXPORT OFFICE: 15 Williams St., New York, N.Y.

sign of equipment and to the use of chemicals in food and detergents.

The service areas will be designed for fast, smoothly flowing traffic. Although we shall insist upon graciousness in our atmosphere, we are not going to tolerate needless time consuming delays in the service lines. Time is a college student's most valuable item.

The shopping center or colonnade system of free access cafeteria service is definitely the trend, and many colleges are planning to use this system in new facilities. Columbia University

and Michigan State, along with the union at the University of Indiana Medical Center, have had excellent success with it.

Much of our equipment is being put on wheels to meet the needs of constantly changing situations where layouts must be fluid.

The use of television and intercommunication systems, even walkie-talkies, will be used to establish better communications within the organization.

The old "institutional look" in college food services is fast disappearing.

Colors and lighting effects are being used to develop a pleasanter atmosphere.

Furniture must be sturdy to stand up under hard usage, but it is still designed for attractiveness.

Dining halls must be multipurpose in use because of the terrific demands for space resulting from increased enrollments. Tulane University has accomplished this effectively in its Caroline-Richardson Dining Hall.

Our students travel a great deal more than before and are more aware of the decorations and atmosphere of their dining halls. They expect us to keep abreast of the times in our decorating schemes. We shall need to plan our decorations in such way that we can change them as our own tastes change over the years.

Of one fact we can be sure, and that is that there will be changes in our kitchens and food services. I know of no well run college that hasn't made some changes (or at least has wanted to) within the last few years. We buy heavy equipment that will last for years, and then find in five or 10 years that it does not meet our needs. We have made heavy investments in bulky equipment and sometimes continue inefficient practices rather than discard or modify the old. We must plan for change.

Era of Long-Range Plan

This is the era of the long-range plan. Every college and university has a committee devoted to this purpose and it is hard at work trying to determine the needs and find the wherewithal to implement them. At Duke we were asked to submit a report on what we believed would be our needs for the next 10 years — and, in general, the 10 beyond those. It was a rewarding experience to compile such a report after many consultations with my staff and associates from other universities, and reading our professional magazines. We had some thought-provoking brain storming sessions.

George Baughman of New York University recently said that he believes it is the duty of colleges and universities of the future to lead the way in the innovation of new ideas in food service, just as they lead in other areas.

If our educational system is to strive for excellence, it follows that the entire plant and facilities, including our dining halls, should keep pace. ■



Typical Buckstaff Library Installation

1 source 1 responsibility

BUCKSTAFF — since 1882 — a most self-sufficient and respected maker of the finest institutional furniture. Wholly-owned facilities include a sawmill, dry kilns, plastic laminating plant, chair and table factory — all located on a 20-acre site in an area where expert wood craftsmanship has never been the exception — but rather — a tradition — a matter of local pride. And, because BUCKSTAFF is all this, it means you deal with one dependable source and centralized responsibility. It means also that you get these highly desirable, exclusive library furniture advantages . . .

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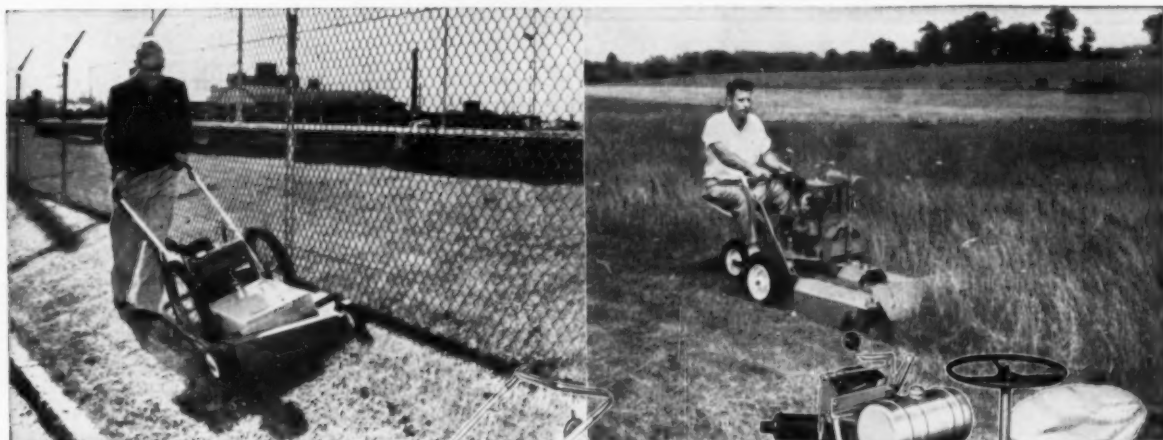
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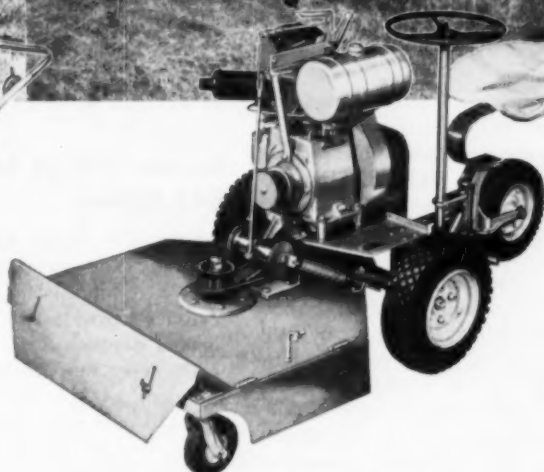
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Produces remarkably smooth cutting, even on roughest terrain. Flexible cutting head with multiple discs permit clean cutting in heavy growth. Three models: 34-inch and 37-inch cutting widths for all types of terrain and 48-inch cutting width for wide turf mowing, heavy duty engines. May be equipped with electric starter-generator set, walking handle, front skids, leaf mulcher.

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NEWS

**Graduate Students Intern in Legislature . . . U.S. Lags in Foreign
Students But Still Tops Russians . . . Land-Grant Schools Prepare
for Centennial . . . Campus Jumps River . . . Chancellor Urges Expansion**

Central Association Plans Anniversary

KANSAS CITY, MO. — Speakers of regional and national prominence are scheduled for the 50th anniversary meeting of the Central Association of College and University Business Officers here. They include Harry S. Truman, former President; L. J. Freehafer, business manager of Purdue University, and Lloyd Morey, president-emeritus of the University of Illinois.

The meeting, which commences April 30 and runs through May 2, will feature discussion conferences of special interest, such as: "Developments in the National Defense Student Loan Program" by James W. Moore, chief of the student loan section of the Office of Higher Education; "Endowment Fund Investment and Accounting Problems" by William S. Kerr, vice president and business manager of Northwestern University; and "The Annual Report: Public Relations Tool" by Harold Herman, editor of COLLEGE AND UNIVERSITY BUSINESS.

Minnesota Campus Divided by River

MINNEAPOLIS. — The University of Minnesota went one better than George Washington. It threw its west campus on the other side of the Mississippi.

Faced with expansion problems and hemmed in on all sides, the university decided to buy and clear land across the river. Excavations have been started for three new buildings across the Mississippi from the century-old main campus on the east bank of the river.

Construction of a double-deck bridge to link the two city campuses probably will start later this year.

The bottom level will be for vehicles, the enclosed and heated upper deck for pedestrians.

The Minnesota legislature in 1959 appropriated \$6,579,000 to cover part of the cost of the first three buildings. They will be a 15 story humanities-social science building, a 13 story business administration building, and a four-story general purpose classroom building with two connected octagonal lecture halls. Enclosed pedestrian bridges will connect the upper stories of the two high-rise structures.

Boston College Seeks \$40 Million

BOSTON. — With highest priority given to endowment for faculty salaries and scholarships, Boston College has started a \$40 million development program.

The Very Rev. Michael P. Walsh, president of the Jesuit institution, said \$15 million would be sought for the centennial year of 1963. The remaining \$25 million will be the goal for 1970.

New buildings projected for the development program include a graduate center, a science center, supplementary library buildings, an institute of human relations center, and a university auditorium as part of a theater and art center.

College Plans Outlay

ELMIRA, N.Y. — Plans for operating, expansion and renovation expenses totaling \$3 million were announced recently by officials of Elmira College. President J. Ralph Murray said operating expenses were expected to reach \$2 million, including \$900,000 in faculty, administration and staff salaries.

June Short Course on Building Service

NEW YORK. — Presentations on a variety of subjects will be approached from several managerial points of view in the 23d annual short course for building service workers at Teachers College, Columbia University.

The course will be held June 5 to 9, and will cover operations, maintenance and minor alterations. Included in the course will be some practical work methods, supervisor technics and problems, and development of better understanding of the importance of good personnel practices. Additional information may be obtained by writing to Richard F. Tonigan, director of the course, Teachers College, Columbia University, New York 27, N.Y.

'Immortality on the Installment Plan'

LAFAYETTE, IND. — A unique life insurance endowment program with a million dollar goal for the benefit of Purdue University has been established by the graduates of the school's Life Insurance Marketing Institute.

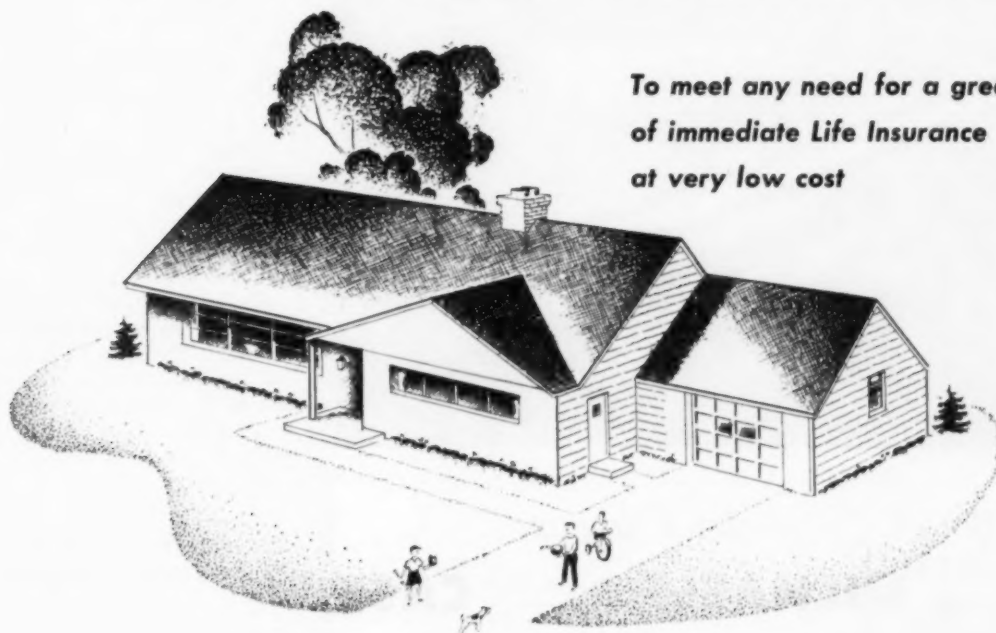
According to Dr. Frederick L. Hovde, president of the university, graduates of the institute have requested that the Purdue program be named the Hal L. Nutt Endowment, in recognition of the services of the man who has been director of the institute since 1950.

At recent ceremonies in the institute classrooms and before an audience of 52 alumni attending a graduate seminar, Philip J. Goldberg, chairman and founder of the Institute for Financial Planning in New York, presented 21 life insurance policies and

(Continued on Page 92)

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As an illustration of the plan's low cost, a 20-year policy providing a \$20,000 initial amount of insurance issued to a man age 30 calls for a level annual premium of \$77.20. The cash dividend of \$31.60 at the end of the first year reduces the first year net cost to \$45.60, according to the current dividend scale. Dividend amounts, of course, are declared once a year and therefore cannot be guaranteed for the future.

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(Continued From Page 90)

24 additional pledges totaling approximately \$100,000 to the university.

These policies range from \$1000 upward and represent nearly all the nationally known life insurance companies, Mr. Goldberg said. All of the policies have, thus far, been purchased by graduates of the institute. The dividends and cash value will accrue to the university. "This program represents immortality on the installment plan for Purdue University," said Mr. Goldberg.

"This is a new phase in the legacy development that is inherent in educational institutions," he continued. "Through the leverage created by the tax deductible premium and the ultimate gift of the life insurance policy, any philanthropic-minded individual can find a means of donating scholarships, professorships, classrooms, residence halls, or other needs of the college or university.

District Court Judge Orders Total Integration

COLUMBUS, GA. — U.S. District Court Judge W. A. Bootle has ordered that "facilities and opportunities" at the University of Georgia be thrown open to two Negro students.

The ruling will mean that the dining room and all other facilities at the university — the swimming pool in particular — will be available to Negro students. Dr. O. C. Aderhold, president of the institution, said that all facilities at the university will comply with the ruling.

Vanderbilt To End Sit-In Vacancy

NASHVILLE, TENN. — A successor to Dr. J. Robert Nelson, former dean of Vanderbilt University Divinity School, who resigned last summer over a sit-in dispute, has been announced. He is Dr. William C. Finch, president of Southwestern University, Georgetown, Tex.

Dr. Nelson resigned in a controversy over the ouster of the Rev. Robert Lawson, a Negro student in the divinity school. The Rev. Mr. Lawson, who completed his studies at Boston University, was let out because of his connection with Negro sit-in demonstrations here.

Twelve faculty members, including Dr. Nelson, resigned in connec-



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tion with the ouster, but all except Dr. Nelson and a member who had accepted another job withdrew their resignations.

U.C. Official Studies Student Housing Abroad

BERKELEY, CALIF. — The universal problem in student housing is "finding the money for residence hall construction," a University of California housing official has declared.

European university students, however, have come up with some inter-

esting ways to raise funds for the purpose, according to Scott Wilson, residence halls administrator on the Berkeley campus, who recently returned from a 10 nation tour of student housing in Western Europe.

"In Oslo, Norway," he said, "the university raised some of its money by selling dormitory spaces at so much per space to surrounding municipalities. In Helsinki, Finland, the students are very proud of the fact that they built the dormitories themselves with money they raised through house-to-house solicitation. They also

operated businesses and turned the profits over to the dormitory fund."

Student housing, especially in Scandinavia, is "excellent, multi-storied and modern," he added. "Usually there is a complete bathroom for every two students and a kitchenette serving six or eight residents. During the summer months, the rooms are rented to tourists. This creates summer jobs for many students, raises additional money to operate the dormitories on a year-round basis, and helps to alleviate the shortage of hotel housing in the summer.

Mr. Wilson has recently been named chairman of the international committee of the National Association of College and University Housing Officers. He hopes to bring foreign experts to the U.S. for an exchange of housing ideas.

Institutions Prepare for Centennial

WASHINGTON, D.C. — Sixty-eight American colleges and universities are preparing to celebrate a centennial — the establishment of the land-grant system of higher education. While the actual anniversary is July 2, 1962, a steering committee of educators already has scheduled a series of programs for 1961 and 1962.

At centennial headquarters here, arrangements have been made for nationwide conferences, seminars and exhibits to spotlight the institutions' origin and their contributions to the economic, cultural and scientific growth of the United States.

Students To Work as Legislature Interns

NEW YORK. — Practical experience will be gained by some 300 graduate students at 31 universities when they become interns with nine state legislatures under a cooperative program announced by the Ford Foundation.

The students, chiefly lawyers, journalists and political scientists planning careers in interpreting or participating in public life, will work with legislative committees and research departments and in the offices of speakers, chief clerks, and other officials.

Grants by the foundation totaling \$1,081,428 will cover one-half of the internship stipends and other costs of

(Continued on Page 96)

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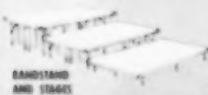
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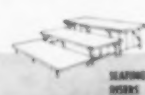
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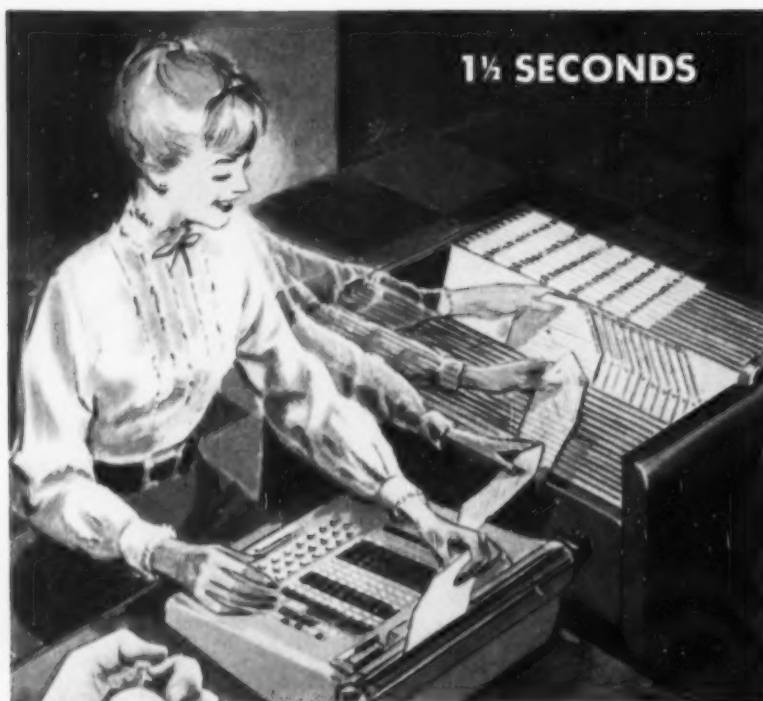
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College Expansion Is Urgent in U.S.

NEW YORK. — By 1970, according to Dr. John R. Everett, chancellor of the Municipal Colleges of New York, 400,000 new faculty positions will be needed and only 88,000 Ph.D's available. Dr. Everett urged an overhaul of college graduate facilities throughout the country to meet the increasing demand for experts, at a recent speaking engagement.

The chancellor declared that the municipal college system, which is planning to convert its seven divisions into a university, "can become the greatest graduate center in the country."

'Four-Course Schedule' at Rochester University

ROCHESTER, N.Y. — A major revision of the University of Rochester's undergraduate curriculum of the university's River Campus will go into effect this fall, Dr. Howard R. Anderson, University of Rochester provost, has announced.

The new plan — unofficially known as the "four-course schedule" — aims to broaden students' opportunities for independent work and permit greater "study in depth" than is now possible, Dr. Anderson said.

The result of a two-year study by the River Campus faculties, the move is the most sweeping revision in the university's undergraduate curriculum in recent years.

Under the revised curriculum schedule, students enrolled in bachelor of arts programs will take four courses each semester instead of the customary five. Most lecture and discussion courses will meet for three 50 minute periods each week and will include the equivalent of a fourth weekly period made up of enriched independent study.

"The heart of the new plan is the re-shaping of the undergraduate curriculum to provide greater opportunity for independent work," Dr. Anderson explained. "By this means we will be able to prepare students more effectively for advanced study



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MAPS OUT GYM-FLOOR STRATEGY. Dick meets with Supt. of Buildings Wuster (left) and Maintenance Supv. High to develop efficient program. Custom plan improves all phases—sealing, finishing, maintenance.



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and for professional life. Moreover, by reducing the course load to four subjects, we will make possible greater depth of study and instruction and enable students to learn each subject more thoroughly."

Noting that 81 per cent of the university's River Campus freshmen come from the top fifth of their high school graduating classes, he said: "We propose to treat our students like the able young scholars we know them to be."

The new curriculum structure also is expected to simplify the univer-

sity's method of computing undergraduate degree requirements. The complex "credit hour" system of computing degree requirements will be dropped and the basic unit of instruction will be the "course." (A course is defined as a "coherent body of academic material requiring approximately 25 per cent of the student's working time during one term.")

Each undergraduate course will be assigned four hours of credit. Candidates for the bachelor of arts degree will be required to complete successfully a total of 32 courses during their

four years. Requirements for bachelor of science candidates will range from 32 to 36 courses, depending on the individual program.

"One of the principal by-products of the faculty study leading to the new curriculum was the intensive re-examination which each department made of its own program," Dr. Anderson said. "This has resulted in elimination of some courses, reorganization of others, addition of new materials where needed, and a consequent strengthening of the entire academic program."

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\$10 Million Program for School Expansion

FOREST GROVE, ORE. — One of the oldest universities on the Pacific Coast, the 112 year old Pacific University, will spend \$10 million on expansion over the next 10 years.

Dr. Miller A. F. Ritchie, president of the institution, announced that new additions to the present library, women's residence hall, and college of optometry buildings would be included in expansion plans. Other improvements will be a new men's residence hall, athletic field house and swimming pool, science building, student center, and chapel-auditorium. Present buildings also will be renovated.

Negro Students Cry 'Jail, No Bail'

ROCK HILL, S.C. — Four Negro student leaders from as many Southern states went to jail here recently to dramatize their struggle against segregation. This incident represents the first attempt at organized South-wide participation in the technique of refusing to post bonds or pay fines.

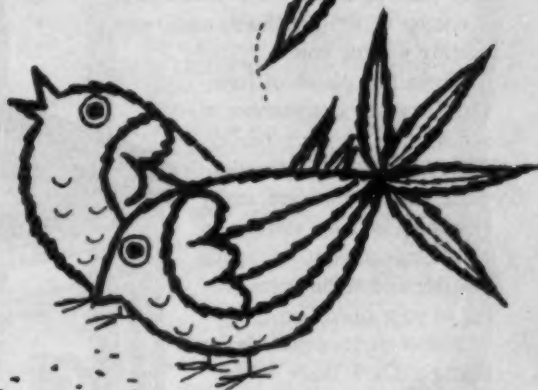
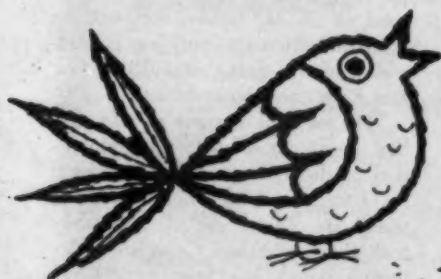
The two men and two women were arrested after requesting service at a white soda fountain in the business district of this textile manufacturing community. They were held for hearing on charges of trespassing.

\$10.5 Million Building Plan for Johns Hopkins

BALTIMORE. — Three new buildings and three major additions to existing buildings, costing a total of \$10.5 million, are planned in the current construction program on the Homewood Campus of the Johns Hopkins University. (Con. on p. 100)



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Two of the projects are under construction now, three others will be started this year, and the final project, the university's \$4.5 million research library, is scheduled to begin in the spring of 1962.

Details of the total program were announced by Wesley A. Taylor, assistant to the president for buildings and grounds.

The current building program, Mr. Taylor said, began in April 1960, when ground was broken for the \$1.5 million Carnegie Embryology Laboratory. The new structure will house

the embryological research staff of the Carnegie Institution of Washington, now operating in facilities of the school of medicine.

Last December construction began on a new wing for Mergenthaler Hall, the biology building, which will provide additional research facilities for the department of biology and the McCollum-Pratt Institute.

"Construction will begin in May for an electronics research laboratory," Mr. Taylor said. "By July we hope the addition to Levering Hall, which houses the campus cafeteria

and student union facilities, will be under way. By the end of 1961 we plan to begin construction of the new addition to Rowland Hall, the physics building, which will greatly increase the space available to that department."

The largest single expenditure in the program will be the new research library which will cost \$4.5 million. Funds are now being raised by a trustee committee, headed by Eli Frank Jr. It is expected to be ready for occupancy by July 1962, and will provide 39,000 square feet. The architectural firm designing the building is Meyer and Ayers.

Levering Hall, the student activities building on the Homewood Campus, will be enlarged to provide increased cafeteria and student union facilities. It will contain 5000 square feet, will cost \$225,000, and is due for completion in January 1962.

The Rowland Hall project, which will be built at an estimated cost of \$2.5 million, will greatly increase the space available for the Johns Hopkins physics department. An additional total of 58,000 square feet will be available when the building is completed in the spring of 1963. Taylor and Fisher are the architects.

"The exterior designs of the new buildings located on the central portion of the Homewood Campus will be in traditional red brick with white trim," Mr. Taylor said, "in harmony with the established Georgian architecture which has been maintained over the years."

New Yale Institute Will Research Economies

NEW HAVEN, CONN. — An international center for research and training in the economies of nations will be established at Yale University under a \$2 million grant from the Ford Foundation.

A university announcement recently said the institute would be known as the Center for Quantitative Study of Economic Structure and Growth. It will be directed by Lloyd G. Reynolds, Sterling professor of economics and former department chairman at Yale.

The grant has been given for 10 years. The center will open in September and will concentrate for the first few years on a few low-income countries in Asia, Africa, Latin America, and some in the Soviet bloc.

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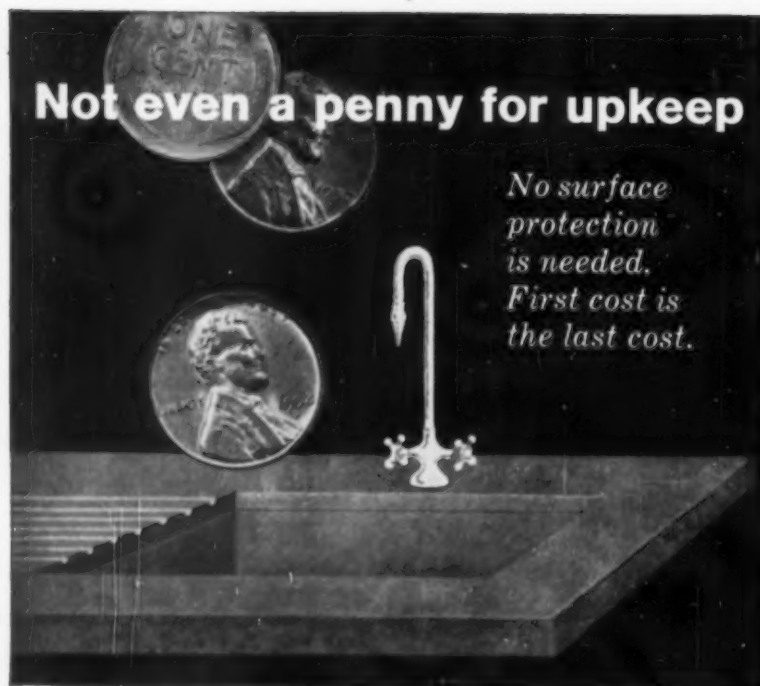


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University President Calls for Parents' Help

UNIVERSITY PARK, PA. — President Eric A. Walker of the Pennsylvania State University has called on parents of college students to cooperate with higher education in its endeavor to ease the financial burden of the taxpayer.

Using his own institution to illustrate a point he believed the public did not fully understand, President Walker said:

"Year-round operation, to cite one example, is designed to enable us to use our plant to its maximum and by so doing to enable us to admit more students than could otherwise be admitted in one year.

"On this basis, we will inaugurate, beginning in June, a four-term plan that will enable us to use our plant more fully, to enroll 30 per cent more students, and to graduate these students in less time — three calendar years instead of the conventional four.

"Translate this stepped-up operation into dollars, and the saving to the taxpayer is substantial. This does not mean, of course, that we will operate our plant year-round for less money. It means instead that we will do 30 per cent more for decidedly less money than would otherwise be possible."

President Walker made it plain that Penn State was not the only university committed to a year-round plan. He pointed out, for example, that Pennsylvania's system of state colleges had already begun the change-over and that several private institutions also were committed. He expressed confidence that still others would follow suit.

"Parents are in position to encourage their youngsters to attend college on a year-round basis," President Walker said, "and too few of them are doing so. Many say they need the money youngsters earn during the summer, completely ignoring the fact that most private banking institutions now make it possible to borrow money which the student is in far better position to repay if he accelerates his program and achieves his full earning power a year earlier."

The president explained that he was not opposed to summer vacations as such but that he was impatient with people who believed that out-moded traditions should be maintained at any price.

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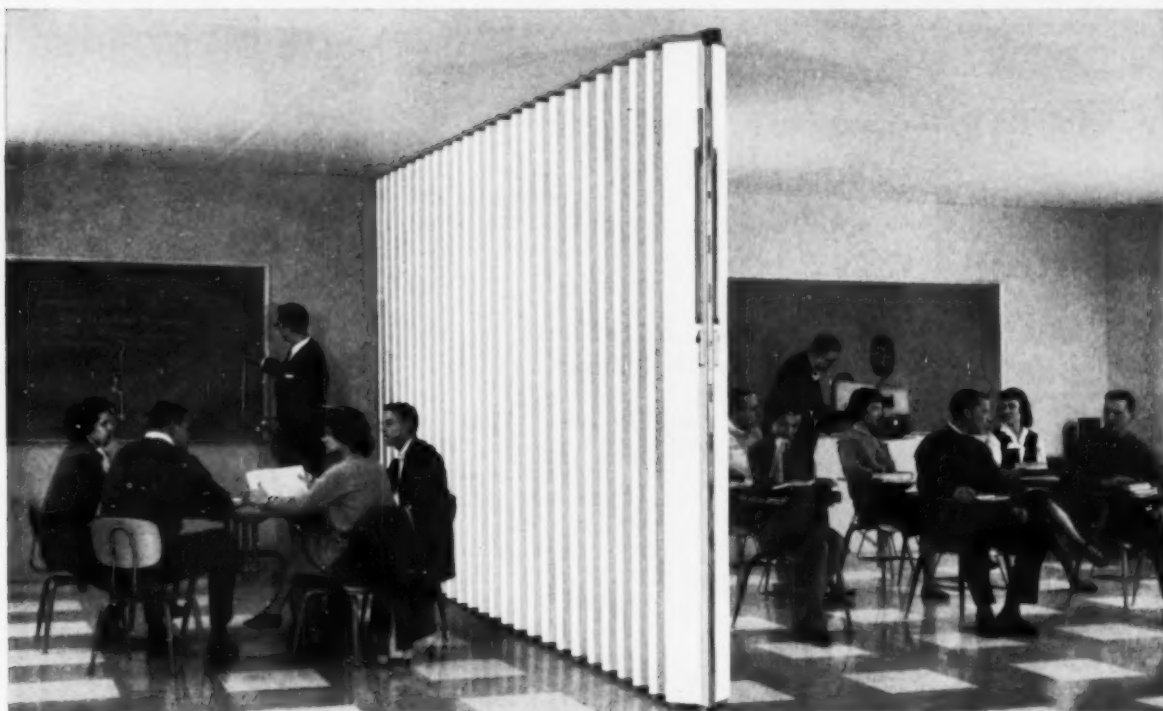
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- Ready to operate

Sanitary! Strong! Efficient! You can assemble any size cooler, freezer or combination in any shape from standard sections. Add sections to increase size as your requirements grow. Easy to disassemble for relocation.

Bally Case and Cooler, Inc., Bally, Pa.

Get details—write Dept. CUB-4 for FREE book.

Certified* to shut out sounds other partitions let through



Furniture by Peabody

*Decibel ratings by Geiger & Hamme Laboratories per ASTM E90-55

New! Steel-Walled Modernfold

● *First in sound reduction . . . first in heavy-duty college design.* To divide large lecture rooms or student lounge areas, to split any living, classroom or activity area to double your use of existing space . . . you'll find this Soundmaster 240 by Modernfold rivals conventional walls in sound control, yet still gives you complete space flexibility.

The heart of Modernfold's sound superiority is in twin walls of steel panels beneath that luxurious vinyl . . . a dense, rigid barrier with eight sound-stopping horizontal edge seals custom-trimmed to the opening.

But this five decibel lead in sound control is only half the story. Because no other partition in the industry matches Modernfold heavy-duty construction. The chart at the right shows you why . . . comparing Modernfold's Soundmaster 240 with the *best* model offered by each of the next largest manufacturers.

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Manufacturers of Modernfold Partitions
and Doors, Air Doors, Modern-Cote Wall
Coverings, Peabody School Furniture
and Pyrox Sheathed Thermocouples.

In Canada: New Castle Products
Canada, Ltd., St. Lambert, Que.



Partition	"240"	"A"	"B"	"C"
*Sound Reduction 125/4000 cps av.	37.4	32.4	31.8	27.9
354/4000 cps av. (Industry Standard)	41.8	35.8	36.4	33.0
Acoustic Panels	steel 5 1/4" wide, wt. 1 lb./sq. ft.	uses cardboard	steel 2 1/4" wide, wt. 1/2 lb./sq. ft.	uses cardboard
Sealer Strips	8	8	4	4
Foam-Lined Jamb-Seal	yes	yes	no	no
Air Release	yes	no	no	no
Pull-In Latch	yes	yes	no	no
Best Fabric Weight— Outside Covering Only	45 oz. per lin. yd.	45 oz. per lin. yd.	18 oz. per lin. yd.	27 oz. per lin. yd.
Top Row Horizontal Hinge Plate Depth	8 1/2"	3"	(vertical)	1 1/2"

NEW CASTLE PRODUCTS, INC.
Dept. S241, New Castle, Ind.

Gentlemen: Please send full information on Soundmaster 240.

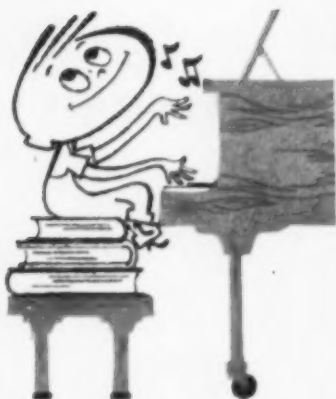
NAME _____

UNIVERSITY _____

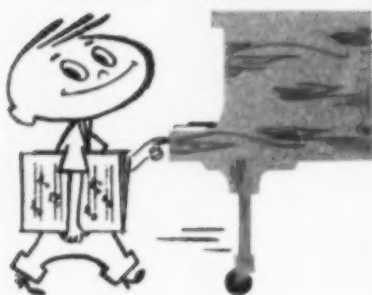
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U.S. Lags in Students From Foreign Countries

UNITED NATIONS, N.Y. — A United Nations survey reported recently that the United States and the Soviet Union had a "low proportion" of foreign students enrolled in their countries.

The United States' total of 3,236,000 students in its higher education system represents only 1.5 per cent of foreign students, while the Soviet Union has 0.5 per cent foreign enrollment among 2,179,000 students.

This ratio compares with a 33.6 foreign enrollment in Tunisia, 40 per cent in Morocco, and 10.7 per cent in Britain.

Urges Aid to Illinois Private Colleges

CHICAGO. — "In view of the very substantial contribution to the welfare of Illinois, is it unreasonable for us to request that the state legislature give serious consideration to an expansion of the state scholarship program and devise a realistic program of grants and loans for the independent higher institutions of the commonwealth?" This question was posed recently by the Very Rev. Comerford J. O'Malley, president of De Paul University, in an appeal to the state for scholarships, loans and grants to private colleges that otherwise might have to close their doors.

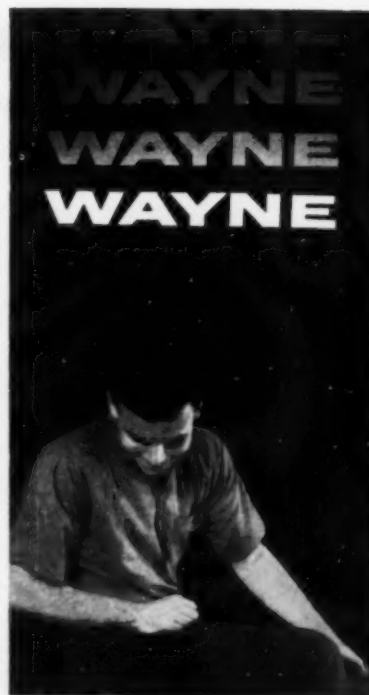
Father O'Malley, in an address to the annual meeting of the Federation of Illinois Colleges at Roosevelt University, noted that the enrollment of 91,578 students in 1960 saved the taxpayer \$85 million in operating costs alone.

New Facility Treats Cancer

COLUMBUS, OHIO. — The Ohio State University Health Center has put into service its new \$1 million radiation therapy facility for the treatment of cancer and allied diseases. The first patient was treated February 20.

Housed in a two-story structure connected to the north wing of University Hospital, the facility is extremely advanced. Patients undergoing treatment will be viewed by closed-circuit television. Walls, ranging in thickness from 8 inches to 7 feet, will protect others from the very

(Continued on Page 108)



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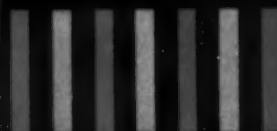
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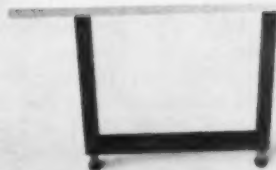
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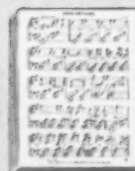
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Barnebey Cheney

(Continued From Page 104)

penetrating radiation involved. Doors interlock as a precautionary measure.

A library and conference room for specialized journals and books related to the field of radiology is located on the second floor, along with offices and a room for mechanical equipment for ventilation, air conditioning, and dissipation of heat from the betatron transformers and capacitors and x-ray generators.

Montclair To Expand After Earth-Moving

MONTCLAIR, N.J. — If any hillbillies live on top of the 50 foot hill overlooking the Montclair Teachers College, they had better start looking for new accommodations. The hill will soon be taken away by truck in one of the largest earth-moving projects ever to be undertaken in New Jersey.

The two-part project will provide about 3 million tons of traprock for highway and other construction programs in the area, and give Montclair Teachers College nearly 40 acres for future expansion.

Dr. E. DeAlton Partridge, president of the college, initiated the project "as the only possible direction for expansion lay in the hillside area and the quarry."

Proposed projects on the site include a library; music building; extension of Finley Hall to house expanded science, mathematics and home economics programs; a three-story men's residence hall; two athletic fields, and a parking area.

NAMES IN THE NEWS

William R. Dunbar is the manager of the new student union, Grover M. Hermann Hall, at the Illinois Institute of Technology, Chicago. Mr. Dunbar had been director of the Yates College Union at William Jewell College, Liberty, Mo.

Jacweir Breslin was appointed secretary of Michigan State University's board of trustees. He was assistant to M.S.U. President John A. Hannah at the time of his appointment. Mr. Breslin will continue in charge of university liaison with the state legislature.

Aubrey Stevenson, assistant business manager for the last three years at Hastings College, Hastings, Neb., has been promoted to business manager. His predecessor, Claude Hol-



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comb, will devote himself full time to the position of treasurer. **Thomas**



A. Stevenson



Thomas Luehr

Luehr, architect formerly with the firm of Davis and Wilson, Lincoln, Neb., was named director of construction and properties at Hastings.

George H. Tagatz has been appointed to the office of development at the University of Chicago. He was formerly in the public relations field.

Rev. John E. Walsh, C.S.C., head of the department of education at the University of Notre Dame, has been appointed director of the Notre Dame Foundation and assistant to the president. His predecessor, the **Rev. John H. Wilson, C.S.C.**, has relinquished the two posts for reasons of health.

Dr. Richard F. Humphreys, a nuclear physicist and vice president

of the Armour Research Foundation at the Illinois Institute of Technology, Chicago, will take office as president of the Cooper Union for the Advancement of Science and Art on June 1. **Dr. Humphreys**, who helped establish the nation's first atomic energy reactor for industrial research, will succeed **Dr. Edwin S. Burdell** at the New York institution. **Dr. Burdell** became president of the Middle East Technical University in Ankara, Turkey, a year ago.



M. E. DeWees

Margaret E. DeWees is now assistant to the director of housing at Indiana University, Bloomington. **Miss DeWees** had been director

of housing at the University of Rhode Island, Kingston, prior to her new appointment.

Dr. Mary I. Bunting, president of Radcliffe College, Cambridge, Mass., received the 1961 American Woman's Association Award for eminent achievement. **Dorothea Hopper**, president of the association, announced recently that **Dr. Bunting** received the award in recognition of her accomplishments in science and education. **Dr. Bunting** is the 29th woman to receive the award from the association, which was founded to advance the economic and cultural interests of women.

Dr. Marvin Wachman assumes the presidency of Lincoln University, Chester County, Pennsylvania, on July 1. He was formerly a professor of history and director of the upper-class core program at Colgate University. **Dr. Wachman** succeeds **Donald C. Yelton**, who has been acting president since July.

J. Merrill Knapp, associate professor of music at Princeton University, Princeton, N.J., has been named dean of the college by **Dr. Robert F. Goheen**, president of Princeton. Professor **Knapp** will succeed **Dr. Jeremiah Finch**, who retires from the administrative post on July 1.

Dr. Winfred L. Godwin has been appointed director of the Southern Regional Education Board, an agency established in 1949 by 16 southern and border states to further higher education in the region. **Dr. Godwin** will succeed **Dr. Robert Anderson**,

(Continued on Page 112)

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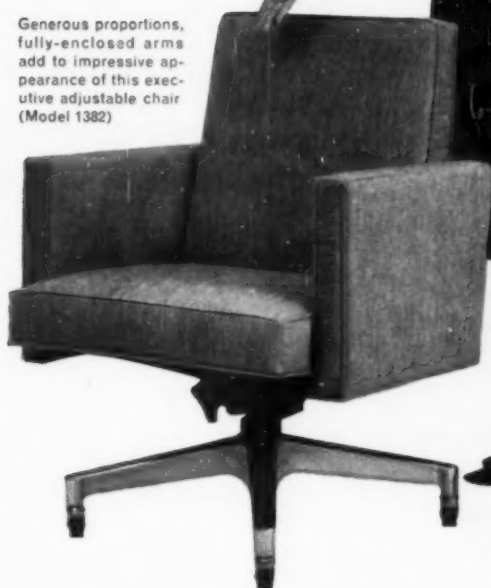
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Just say the word and we'll send you a copy of our new full-color Flightline chair brochure. Address Dept. C.



(1385) Armless executive chair for freedom of movement



(1389) Secretarial posture chair



(1387) Secretarial posture chair —larger dimensions



(1386) Clerical posture chair with upholstered arm rests



(1381) Executive posture chair with open arms



(1342) Armless side chair with foam rubber seat and back



(1375) Secretarial posture chair; curved seat, back rest



(1345) Distinctive side chair with solid walnut arms

STEELCASE INC

who resigned in January to become president of Alabama Polytechnic Institute, Auburn.



Russell L. Reed will become controller of Teachers College, Columbia University, July 1. He will succeed **Dr. Thad L. Hungate**, controller for the last quarter century. Mr. Reed was formerly the assistant controller of the institution.

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Mr. Reed was formerly the assistant controller of the institution.

F. Rhodes Henderer, former staff director for public relations research for the United States Steel Corporation in New York, has been appointed vice president of Adelphi College, Garden City, N.Y. Mr. Henderer is a civil engineer.

Dr. Lawrence L. Jarvie, former executive dean of New York State University, was inducted recently as president of the New York City Community College of Applied Arts and Sciences. Dr. Jarvie succeeds **Dr. Otto Klitgord**, first president of the college, who died last April.

Dr. C. Russell de Burlo Jr. has been elected vice president and controller at Tufts University, Medford, Mass., by the trustees. Dr. de Burlo has been with the university since 1949 and prior to this election was the controller and business officer.



C. R. de Burlo Jr.

Charles R. Wilson will assume the position of provost of Miami University, Oxford, Ohio, on September 1. He is chairman of the history department of Colgate University, Hamilton, N.Y.

Dr. I. Meyer Hunsberger, has been elected dean of the college of arts and sciences at the University of Massachusetts, Amherst. He is a former Fordham University professor of chemistry.

Dr. Myron F. Wicke, dean of the college of arts and sciences at Southwestern University, Georgetown, Tex., will return to the staff of the Division of Higher Education, the Methodist Church, on June 1. He becomes associate general secretary to **Dr. John O. Gross**, general secretary of the division since 1948. Dr. Wicke was director of the Department of Secondary and Higher Education for nine years before accepting his present position at Southwestern in 1958.

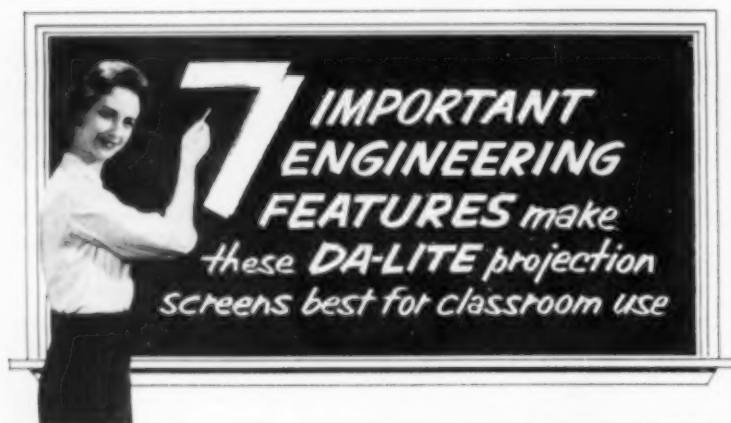
Dr. Everett H. Hopkins, vice chancellor for university development at Washington University, St. Louis, has been appointed to the newly created position of vice president for institutional advancement at Duke University, Durham, N.C. He will assume his new duties July 1.

Joseph Jones is now business manager of Bluefield State College, Bluefield, W.Va. He was formerly the business manager at Florida Normal & Industrial Memorial College, St. Augustine.

M. R. Alexander, former business manager at Shaw University, Raleigh, N.C., has been appointed business manager of Agriculture & Technical College of North Carolina, Greensboro. He succeeds **E. Ray Hodgkin**, who died in January.

Dr. William H. Hale, a former professor of sociology, became the 10th president of Langston University, Langston, Okla.

Dr. E. C. McGill, formerly head of business education at Kansas State



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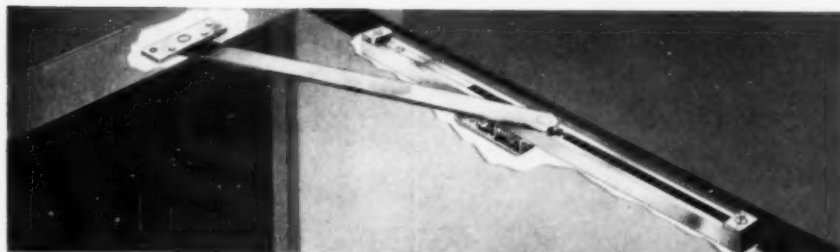
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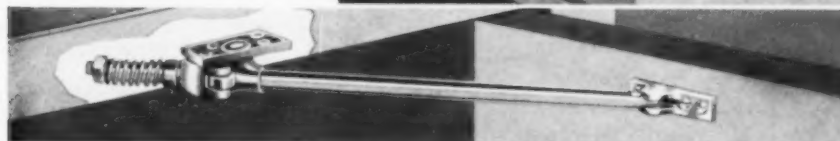


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CUB 461

University, Emporia, Kan., is now
serving as assistant to the president at
Southern Oregon College, Ashland,
Ore. He is in charge of academic
affairs. The former business manager
of Southern Oregon, Donald Lewis,
has been promoted to assistant to the
president, in charge of business
affairs and physical facilities.



D. D. Robinson

Daniel D. Robinson, acting
business manager
of New York Uni-
versity, has been
named business
manager and will
be responsible for
the over-all busi-
ness operations of the university. Mr.
Robinson joined the university's staff
in 1956 as an assistant controller.

Frank K. Dunn, minister of the
First Christian Church, Jacksonville,
Fla., has been named assistant to the
president of Bethany College, Beth-
any, W.Va. Mr. Dunn will begin his
new position September 1, following
a preaching mission in Glasgow, Scot-
land.

Fred A. Forbes, former public rela-
tions counsel for the National Educa-
tion Association, Washington, D.C.,
was appointed by **Robert C. Weaver**,
housing administrator, as assistant
administrator for public affairs of the
Housing and Home Finance Agency.

Henry R. Pemberton, financial vice
president of the University of Penn-
sylvania, Philadelphia, was elected to
the newly created post of business
and financial vice president.

Dr. W. A. Bell, president of Miles
College, Birmingham, Ala., died re-
cently.

The Very Rev. **Edmond D. Benard**,
dean of Catholic University's School
of Sacred Theology, Washington,
D.C., died as the result of smoke
poisoning. A fire in his study was
started, apparently, when a cigaret
ignited a chair.

Lloyd R. Steere, retired treasurer
of the University of Chicago, died
recently. He was 80 years old.

Dr. Frank C. Bolton, president
emeritus of Texas Agricultural and
Mechanical College, died recently in
Houston. He was 77.

Dr. John L. Seaton, president
emeritus of Albion College, Albion,
Mich., and a past president of the
Association of American Colleges,
died at his home in Short Hills, N.J.,
at the age of 88.

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National Association of Physical Plant Administrators of Universities and Colleges

President: Carl M. F. Peterson, Massachusetts Institute of Technology; secretary-treasurer: John H. Sweitzer, Earlham College, Richmond, Ind.

Convention: July 3-7, Oregon State College, Corvallis.

American College Public Relations Association

President: Lyle M. Nelson, University of Michigan; executive director: Frank L. Ashmore, 1785 Massachusetts Ave., Washington 6, D.C.

National Association of Educational Buyers

President: Bruce Partridge, University of Delaware; executive secretary: Bart C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 3-5, Chase Hotel, St. Louis.

National Association of College Stores

President: C. Paul Irvine, Oregon State College Cooperative Association, Corvallis, Ore.; general manager: Russell Reynolds, 55 East College Street, Oberlin, Ohio.

National Federation of College and University Business Officers Associations

President: Charles H. Wheeler III, University of Richmond; secretary: Kenneth Dick, University of Idaho.

Canadian Association of University Business Officers

President: M. C. Tillotson, Queen's University; secretary-treasurer: D. S. Claringbold, treasurer, Hart House, University of Toronto.

Associations of College and University Business Officers

American Association

President: G. Cletus Birchette, Atlanta University; secretary: C. E. Prothro Jr., Tuskegee Institute.

Convention: May 4-6, Texas Southern University, Houston.

Central Association

President: Harlan Kirk, Michigan State University, East Lansing, Mich.; secretary-treasurer: James J. Ritterskamp Jr., Washington University, St. Louis.

Convention: April 30-May 2, Hotel Muehlbach, Kansas City, Mo.

Eastern Association

President: Richard D. Strathmeyer, University of Buffalo; secretary-treasurer: Kurt M. Hertzfeld, Boston University.

Convention: Dec. 3-5, The Warwick, Philadelphia.

Southern Association

President: C. L. Springfield, Southwestern at Memphis; secretary: Clarence Scheps, Tulane University.

Convention: April 23-25, Dinkler-Tutweiler Hotel, Birmingham, Ala.

Western Association

President: Harry E. Brakebill, San Francisco State College; secretary: Charles O. Pierpoint, University of Redlands.

Convention: April 30-May 3, Portland, Ore.

Association of College and University Housing Officers

President: Fred A. Schwendiman, Brigham Young University; secretary-treasurer: A. Thornton Edwards, Kansas State University.

Convention: July 30-Aug. 3, Columbia University.

Association of College Unions

President: Gerald T. Erdahl, N. C. State College, Raleigh, N.C.; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

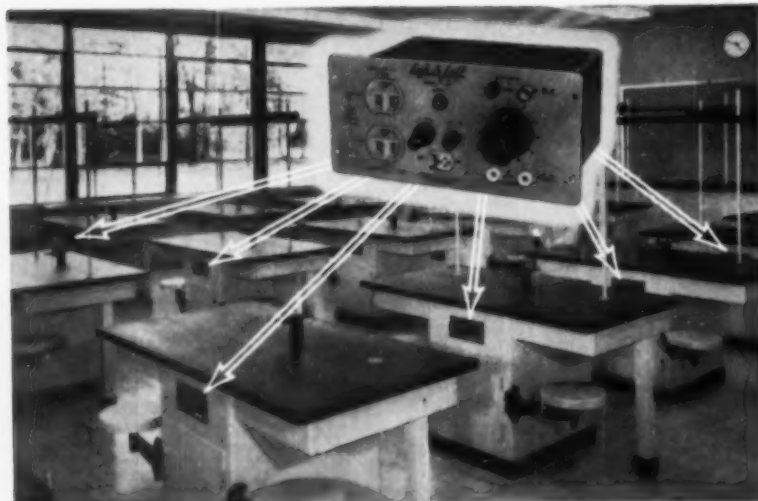
Convention: April 16-19, Broadmoor Hotel, Colorado Springs, Colo.

College and University Personnel Association

President: Charles T. Clark, University of Texas; executive secretary: Donald E. Dickson, University of Illinois. Permanent headquarters, 605 S. Goodwin Ave., Urbana, Ill.

American Alumni Council

President: George J. Cooke, Princeton University; executive director: Ernest T. Stewart, 1785 Massachusetts Ave., N.W., Washington 6, D.C.



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The Finish is part of the Floor

Here's a beautiful and versatile floor. Properly maintained, it takes punishment in stride. But—far more hazardous than scuffing feet or tracked-in grime, are improper and inferior floor treatments. Instead of protecting the floor, such treatments may actually damage it!

Avoid costly mis-matching of floor and treatment. Follow the specifications of the Asphalt and Vinyl Asbestos Tile Institute*; choose the specialized treatments that fit the flooring. You'll hold "new floor" beauty much longer, and you'll be money ahead in maintenance.



- * **SCRUB** "with a good, mild neutral cleaner... no oils, organic solvents or other injurious materials." Hillyard Super Shine-All® is the famous neutral chemical cleaner with 6-fold cleansing action, formulated safe for all flooring. UL listed "as to slip resistance".
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POSITIONS WANTED

Administrative Position — Admissions, placement personnel, finance, development; B.S. and M.B.A. Degrees; fifteen years administrative/supervisory experience; five years teaching experience at college level; age 43. Write to C. M. QUINN, J-2 Perry Circle, Annapolis, Maryland.

Bookstore Manager — Ten years experience in university bookstore management; purchasing; university press; counseling; preparation of budgets; public relations; age 47; married. Write to Box CW 374, COLLEGE AND UNIVERSITY BUSINESS.

Business Administrator — Twelve years university and business experience, presently at executive level; background includes purchasing, personnel, building construction and operation, food operations, systems analysis, budgetary control and teaching; Master's Degree; age 35, married. Write to Box CW 611, COLLEGE AND UNIVERSITY BUSINESS.

Business-Auxiliary Administrator — For college president; B.A. & M.B.A.; college experience in food administration, instructor of management, and associate director of economic-business research; twelve years background in private industry dealing with hotel-resort administration, salary administration and promotion; extensive administration and direction of functions dealing with business management, housing, food service, purchasing, maintenance and physical plant supervision, non-academic budgeting and financial control and other related segments of auxiliary services; family man with desire to enter environment of a progressive campus needing a competent, proven thirty-five year old business administrator who strives for completion of responsibility without clockwatching. Write to Box CW 612, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — Navy supply corps captain, experienced in budgeting, procurement, food service, financial and logistic management, industrial relations. Write to Box CW 609, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — 20 years management experience including controllership in school, dormitory and general administration; budgets, purchasing and government contracts; B. A. Degree; married, 2 children; age 47; resumé on request. Write to Box CW 605, COLLEGE AND UNIVERSITY BUSINESS.

Business Officer — Progressively responsible university experience in purchasing, housing, placement and career counseling, auxiliary enterprises; excellent supervisor; graduate education business administration; age 44, married. Write to Box CW 608, COLLEGE AND UNIVERSITY BUSINESS.

Business Official — Lengthy experience as business manager, purchasing agent, bursar, bookstore manager; relocate, southeast preferred; complete resumé available. Write to Box CW 606, COLLEGE AND UNIVERSITY BUSINESS.

Chief Business Officer — Fourteen years experience in public and private colleges, responsible for all phases of business management; age 41; desires position with promising institution. Write to Box CW 601, COLLEGE AND UNIVERSITY BUSINESS.

College Administrator — Assistant to president of small college, desires to relocate, seeks position requiring experience, responsibility and initiative; fourteen years of particular experience in physical plant planning, non-academic budgets, trustee liaison and operation of auxiliary enterprises; familiar with development, contracts and publications; age 40, married, children; available upon reasonable notice to present assignment. Write to Box CW 599, COLLEGE AND UNIVERSITY BUSINESS.

Director of Auxiliary Services — Twenty-seven years experience in food services; student-faculty center management, budgetary control; heavy emphasis purchasing; prefer challenge of new center or one not operating effectively; not interested in going concern. Write to Box CW 610, COLLEGE AND UNIVERSITY BUSINESS.

Director of Buildings and Grounds or Similar Title — Private institution experience in supervision of all plant operations, including budgeting, purchasing, construction, remodeling, maintenance, custodial, grounds, etc.; resumé upon request. Write to Box CW 596, COLLEGE AND UNIVERSITY BUSINESS.

Director of Food Services or Auxiliary Enterprises — Thorough knowledge of specific executive responsibilities of mass feeding including planning, organization, personnel, purchasing, development, public relations, and coordination; Bachelor's Degree, Hotel Administration; 25 years experience; 12 in educational institutions; age 49. Write to Box CW 607, COLLEGE AND UNIVERSITY BUSINESS.

Director of Services — Ten years experience university level background includes counseling, controllership; fund raising and public relations. Write to Box CW 563, COLLEGE AND UNIVERSITY BUSINESS.

Food Director — Masters in Institutional Management; experience — 6 years teaching, 3-7.5 years administrative food service in college and inplant feeding; age 47, single; available July; prefer central or southwestern location. Write to Box CW 590, COLLEGE AND UNIVERSITY BUSINESS.

Food Director — 16 years college feeding experience, menus, purchasing, preparation cost control, personnel training; excellent references; prefer midwest. Write to Box CW 604, COLLEGE AND UNIVERSITY BUSINESS.

Food Manager — Cafeteria and grill; presently employed; several years experience in college feeding; prefer private college in south or southwest; complete charge of food operation. Write to Box CW 602, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director — Experienced in all phases college food service; like to relocate between Chicago and east coast; excellent references; available July 1st. Write to Box CW 598, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director — Institutional Management Degree; 31 years old; experienced in all phases of management plus catering, contract-feeding, and new construction; 12 years experience. Write to Box CW 603, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Executive — Now employed, desires relocate; available September 1st; over 20 years experience large food services, all phases, at large university. Write to Box CW 613, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds — Eighteen years supervision all phases maintenance, construction university, military plants; preventive maintenance emphasized. Write to Box CW 597, COLLEGE AND UNIVERSITY BUSINESS.

University Press Director — Age 47; ten years experience in all phases of publishing; also qualified as administrative assistant to the president; can prepare budgets, raise funds and handle public relations. Write to Box CW 582, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Assistant Housing Director — Large urban university located in midwest; extensive dormitory and apartment development; outstanding opportunity in this field. Write to Box CO 397, COLLEGE AND UNIVERSITY BUSINESS.

Assistant to Manager of College Residences — For privately owned college in midwest; should have training and experience supervising personnel, controlling costs, managing operation of dormitories for both men and women; position open summer 1961. Send complete resumé to Box CO 392, COLLEGE AND UNIVERSITY BUSINESS.

(Continued on Page 119)

COLLEGE AND UNIVERSITY BUSINESS

1050 Merchandise Mart, Chicago 54, Ill.



Why Every School needs the **Airkem** Program for Environmental Health!

Everybody benefits! Children "do better in school." Illness drops, attendance climbs. Teachers, parents and visitors notice a big difference when you put the Airkem program to work and bring a clean, odorless, agreeable and *healthful* new "climate" into the school.

The Airkem program gets to the heart of the problem. It thoroughly cleans all surfaces. It kills germs and other micro-organisms. It kills insects. It kills odors by counteracting them. And it gives an air-freshened effect without adding obnoxious perfumes or chemical smells. It is the only *complete* program of basic sanitation maintenance.

There's no mystery about it! All you do is make sure the proper Airkem product is used in its proper place in the school. Procedures are simple—and they actually *save money and time* by combining several housekeeping jobs in one, freeing your maintenance staff for other work. Inquire!

See opposite column for
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For a Healthier
Environment through
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classified advertising

POSITIONS OPEN

Continued From Page 118

College Personnel Officer — Rapidly growing public college in metropolitan southern California; position to open summer 1961 at \$6672 beginning salary; nonacademic responsibilities include classification and salary studies, recruitment and placement, performance appraisal, and particular emphasis on in-service training program planning and administration. Send resumé of experience, education and personal data to Box CO 394, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director — For STANFORD UNIVERSITY, Palo Alto, California; new college union now in the working drawings stage; director will operate existing union food service for one year (1961-62), while preparing for the new operation; anticipated food gross for new facility is \$350,000 with growth possibilities apparent, both in operating potential and plant expansion; salary open.

Food Service Supervisor — To supervise 40 to 50 employees in a new food service unit with completely modern equipment, beginning September 1, 1961; paid vacation, sick leave, group life insurance, group rates for Blue Cross-Blue Shield coverage, non-con? tributary pension plan, workman's compensation, meals furnished while on duty, uniforms laundered by university; forty-hour work week; excellent possibility for year-round employment; excellent working conditions in pleasant university atmosphere on main line of Pennsylvania Railroad halfway between New York and Washington; must have college Degree in Institutional or Restaurant Management. Contact Mr. Donald G. Bickert, Director of Food Service, UNIVERSITY OF DELAWARE, Newark, Delaware.

Food Service Supervisors — A large educational institution in Pennsylvania has openings for men and women with or without food service experience; must have Degree in Home Economics, Hotel Management or related field; the openings exist because of the opening of a new dining hall operation; orientation training provided; liberal benefits programs, ideal living conditions, challenge and opportunity for advancement. For complete details write to Box CO 369, COLLEGE AND UNIVERSITY BUSINESS.

MISCELLANEOUS

Midwestern College of 7000 —

Manager of Cafeteria and also Food Production Manager, \$460 per month and up, dependent upon experience and training; Degrees in Institutional Management or Home Economics required; some experience helpful.

Foreman of Groundsmen, working knowledge of care of grounds a necessity; experience in supervision.

Many valuable fringe benefits; age 35-40 preferred.

Send resumé to Box CO 395, COLLEGE AND UNIVERSITY BUSINESS.

Keep your Rest Rooms Safe from Health Hazards!

Is any school official ever satisfied with conditions in the rest-rooms? Beyond question—some are. Those who utilize Airkem techniques can be justly *proud* of the cleanliness, the freedom from odor, the healthful environment produced in school rest-rooms through the use of three specialized Airkem products.

One is the Airkem bowl-cleaner. It quickly dissolves encrusted uric acid salts, and keeps fixtures gleaming clean without endangering metal or porcelain parts. Another Airkem product specifically counteracts urine and fecal odors. The third cleans *and disinfects* all surfaces—walls, floors, fixtures—and imparts an air-freshened effect without adding obnoxious perfumes or chemical smells. Acting together, these Airkem products perform the complete task, yet without imposing an additional work-load on your maintenance staff. It's a hard job made easy—a hard job well done—by Airkem! Call your nearby Airkem man.

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Regular \$16 Value

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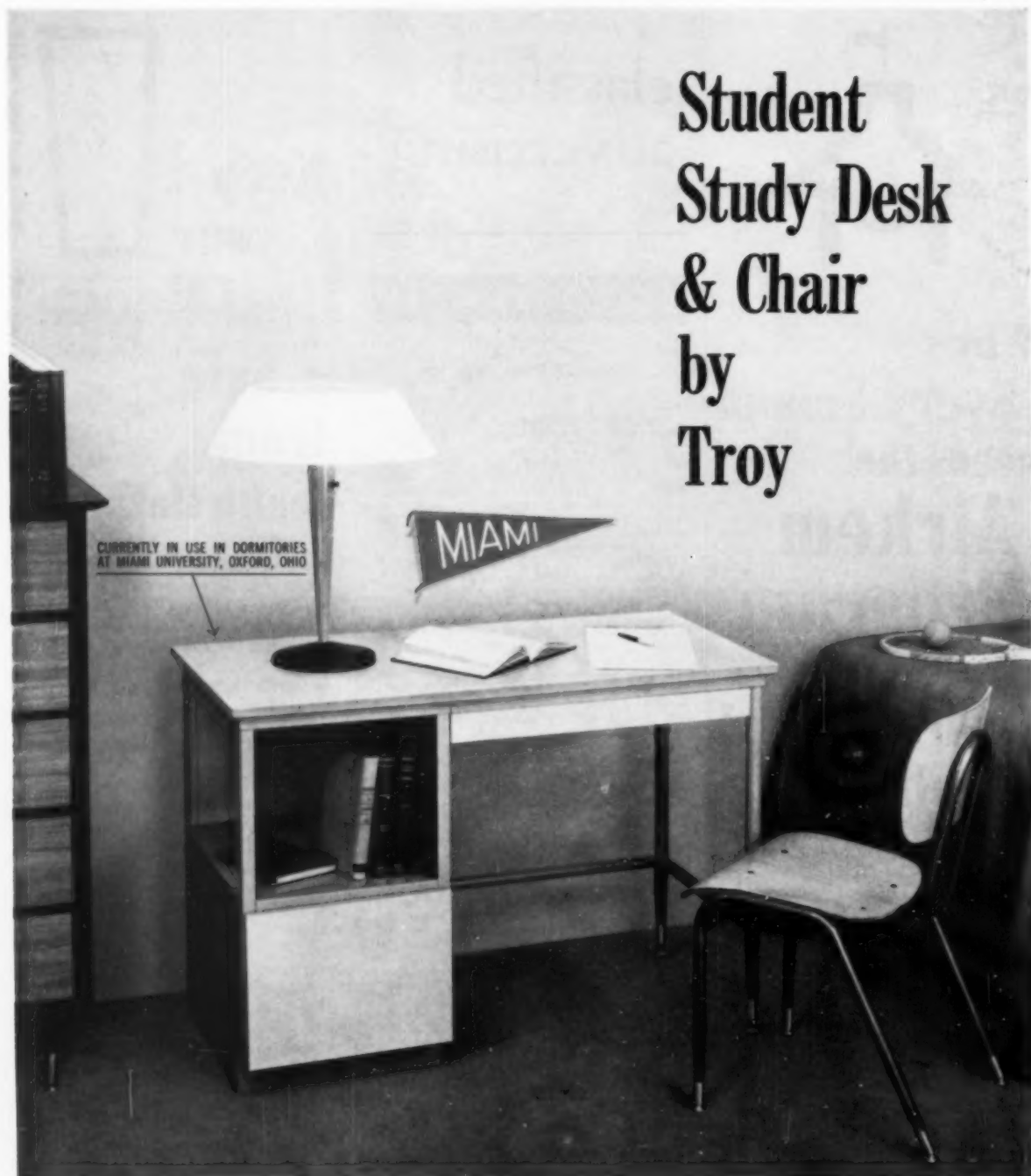


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Student Study Desk & Chair by Troy



Good looking and practically indestructible! Solid Fibresin tops and drawer fronts provide positive protection against stains, cigarette burns, even acids; all-welded bonderized steel frames in a choice or colors offer exceptional durability. The seat and back of the tubular steel chair (enameled to match the desk) are molded of sturdy plywood in a natural varnish finish. *It stacks!* This is maintenance-free furniture for the dorm or frat house that gets high marks for eye appeal and function—at a low-mark price!

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NEW YORK.....One Park Avenue
HIGH POINT, Furniture Displays Bldg.
MIAMI.....9100 Seventh Avenue, NW

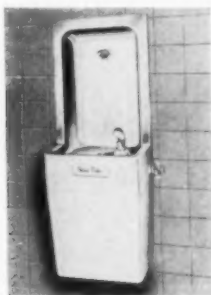
MANUFACTURERS OF FINE CASUAL & SUMMER FURNITURE AND GARDEN UMBRELLAS

WHAT'S NEW

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card on page 139. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Wall Mount Fountain-Cooler Is Semi-Recessed

Wall mounted to facilitate floor maintenance and save space, the new Halsey



Taylor Cooler-Fountain is completely enclosed in type 304 stainless steel. The compact, semi-recessed unit projects only 7½ inches from the wall, has a water-cooled condenser and six-gallon per hour capacity. The Halsey W. Taylor Co., Warren, Ohio.

For more details circle #377 on mailing card.

WhirlPower Burner-Boiler for Moderate-Sized Institutions

A burner-boiler package that provides steam or hot water requirements with one burner and one boiler precision-locked in combination and ready for instant installation is provided in the new Iron Fireman WhirlPower. It can be fueled either by gas or oil or gas-oil as desired and is introduced for use in medium-sized institutions. Iron Fireman Mfg. Co., 3170 W. 106th St., Cleveland 11, Ohio.

For more details circle #378 on mailing card.

Electronic Language Classroom Travels in Trailer Van



Two mobile language laboratories, slated to visit more than 250 cities this year, are available for display at schools and colleges. Called Rolloramas, they are contained in specially constructed trailer vans and contain electronic language laboratory equipment with all elements found in a typical school installation, including

teaching console and student booths. Demonstrations of the systems, designed to inform educational groups, including administrators, board members, faculty members and auxiliary organizations, are made through the use of tapes from the various language collections. Edwards Co., Inc., Norwalk, Conn.

For more details circle #379 on mailing card.

Waterproof Walls for Tub and Shower

Durable, easy cleaning new waterproof walls for tub-and-shower enclosures in institutions are supplied in simple self-sufficient installation packages or as panels. Two layers of Micarta laminate bind an inner core of moisture-resistant foamed polystyrene. Micarta Division, Westinghouse Electric Corp., Hampton, S.C.

For more details circle #380 on mailing card.

Type "R" Steel Signs on Sipco Dunking Stations

A new Model No. 4J-R is added to the Sipco Dunking Station line of "safe smok-

ers." Designed to be placed at doors and elevators, in corridors, lounges and other areas in student unions, class buildings, dormitories and the like, the units are easily mounted permanently and are cleaned by removing the glass fiber inner



liner. The new type "R" rectangular steel signs are made of heavy gauge steel with black lettering on a white background, available with any of six different wordings to encourage safe disposal of cigarettes and cigars. The No. 4J-R is offered with either Deluxe Bright polished or Duo-Tone gray crinkle finish. Standard Industrial Products Co., 3527 Farmington Rd., Peoria, Ill.

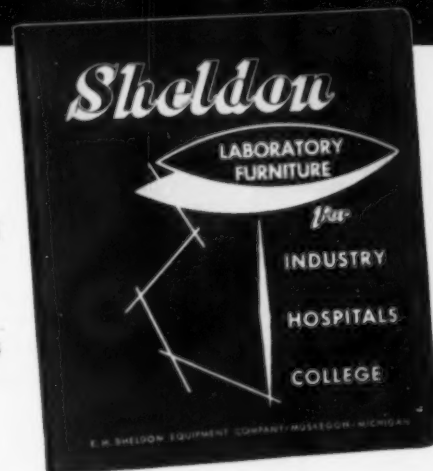
For more details circle #381 on mailing card.

(Continued on page 122)

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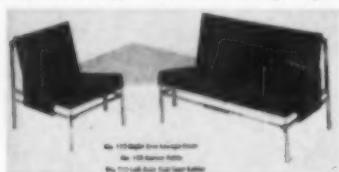


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Modular Seating Group Features Adaptability

Designed to fill almost any type of lounge or reception room seating require-



ment, the Royal Modular Seating Group consists of a lounge chair and two-seater settee, both of which are available with one or two or no arms. The Royalwood table tops in three rectangular sizes can be ordered with attachments, such as a

built-in planter or ashtray. Cushions are Naugahyde or Super Tuftex over foam rubber, and the sturdy steel frames have welded joints and chrome finish. **Royal Metal Mfg. Co., 1 Park Ave., New York.** For more details circle #382 on mailing card.

"Thermo-Fax" Visual Communications With Projection Transparencies

Plastic transparencies can be made from almost any document in less than ten seconds in normal light and projected immediately in a fully-lighted room with the new "Thermo-Fax" brand visual communications system. It combines the use of any existing "Thermo-Fax" copying machine and the new "Thermo-Fax" projector for fast, economical and efficient op-

eration. The projector is a compact unit weighing 40 pounds which can be moved easily from room to room and uses regular 110 volt current for operation. No special training or complicated developing processes are required as the "Thermo-Fax" projection transparencies are made from plastic sheets and need no chemicals or solutions. The transparency is immediately ready for projection and is made from opaque, transparent or translucent originals. **Minnesota Mining & Mfg. Co., 900 Bush Ave., St. Paul 6, Minn.**

For more details circle #383 on mailing card.

Model 520 Drawing Table Has Front Board Storage



Featuring storage for six drawing boards at the front of the table, the new Model AC-520 Drawing Table occupies minimum space to permit the use of the maximum number of tables in small classrooms. The six drawers are keyed differently to allow each student to lock up his supplies, with a master key for the instructor. A new adjustment simplifies raising and lowering of drawing boards, which are available in 24 by 24-inch and larger sizes. **Garrett Tubular Products, Inc., P.O. Box 237, Garrett, Ind.**

For more details circle #384 on mailing card.

"Venti-Breather" Oral Resuscitator for Emergency Treatment

Designed to facilitate artificial respiration by the mouth-to-mouth technique without personal contact with the victim, the



"Venti-Breather" oral resuscitator has a flexible face mask which fits both adults and children. The device permits sanitary separation of the victim and the individual administering aid. The rescuer breathes through a special tube to inflate the victim's lungs and a unique one-way valve directs the breath away from the rescuer as it returns. The Venti-Breather occupies small space and can prove useful in the athletic department and other areas where quick first-aid resuscitation might be needed. **Venti-Breather Products, Inc., 725 Fifteenth N. W., Washington 5, D.C.**

For more details circle #385 on mailing card.

(Continued on page 124)

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REVENUE BOND FINANCING

And when you do, avail yourself of the wide and extensive experience of White, Weld & Co., working in behalf of many educational institutions in this specialized investment field. In the past six years, our firm has negotiated, acted as agent for, or purchased at public sale 29 separate issues of college revenue bonds totaling nearly \$115,500,000. In addition, it has acted as manager or joint manager of investment banking syndicates which have financed 20 such issues aggregating more than \$47,500,000.

White, Weld & Co. has been one of the leading investment banking firms in college revenue bond financing. The benefits of our accumulated experience are yours for the asking. If you would like to know more about how other schools have used revenue bonds for expansion, improvements and added facilities, please contact us in Chicago or at any of our other offices.

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This is creative language instruction

Hamilton Language Teaching Systems provide remarkable ease of classroom control from a versatile, flexible master console

Unique, individual, trouble-free student switches permit the instructor to intercom, silent monitor, or record student responses at the console. No laborious turning of row and seat selectors to accomplish these functions. Student switches, as well as the program selector switches, are located on the console in the same relative position as the students in the classroom.

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Versatile Hamilton Teaching Systems are available to fit your needs *today*. Trained specialists will assist in planning your individual system—to fit your budget. And Hamilton versatility, simplicity, and trouble-free performance are backed by leadership in building quality professional and scientific equipment for over 40 years.

Only Hamilton offers all these features

- Multiple switching concept provides "all-call" to selected groups or the entire class.
- Exclusive engineering design permits use of console by two instructors simultaneously.
- Loud-speaker permits instructor and visitors to hear the program without the use of headphones.

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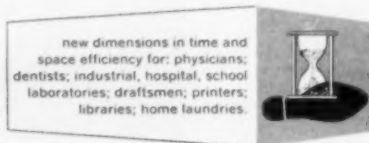


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Hundreds of hours of acoustical testing have produced a student booth that offers the utmost in sound absorption.

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It enables you to visualize a complete teaching system to fit your space requirements. Write for it today—it's free!



Now...a complete NEW line of Halsey Taylor fixtures ✦



You are looking at the very newest in face-mounted wall fountains... exciting new designs dramatically created in stainless steel by Halsey Taylor. They're just some of the many fountains and coolers in the complete new Halsey Taylor line!

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✦ in glamorous stainless steel



In addition to these, you can obtain recess and semi-recess wall types, coolers for all purposes, class-room fixtures and wall brackets...all in lustrous stainless steel.

And you also get all the extra Halsey Taylor features, such as dependable performance, health-safety, maintenance-free service.

Fountains illustrated:

Top View 13" back
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Environmental Control Cabinet for Plant and Animal Study

The Sheldon Climatarium T-3152 provides an educationally correct environmental control cabinet for plant and animal study. The basic Climatarium assembly consists of three components: the Climatarium, the Lightproof Cover and the Light Assembly with the built-in Service Control Panel. An instruction booklet provides a guide for assembling and using the unit. With the Sheldon Climatarium



the desired season, day or night, is set by the instructor, and results with plant and animal subjects are assured, on schedule, regardless of vacation periods, cold week ends and erratic day and night building temperatures. Teaching is thus able to follow biology textbooks with a specific timetable. The light source, regulation of light intensity and color characteristics are selected, the lightproof cover permits unrestricted scheduling of light and dark periods, and a flexible heating cable permits several methods of controlled heating. E. H. Sheldon Equipment Co., Muskegon, Mich.

For more details circle #386 on mailing card.

Inexpensive Device Supplements Teaching Material

An unusually low-cost teaching machine is now available to educational institutions to enable them to experiment with the new teaching techniques. Machine programs, and programmed textbooks which can be used independently of the machine, are also introduced. The device and the instruction material are being marketed under an agreement between



Grolier and Teaching Machines, Inc., the latter organization formed by a group of psychologists to develop new self-teaching equipment and material. Courses are now available in several subjects with additional programs in preparation. The programmed instruction material is described as an aid to supplement the work of the instructor, and to give him more time for classroom discussion. Grolier, 575 Lexington Ave., New York 22.

For more details circle #387 on mailing card.

(Continued on page 126)

DURABLE and SMART furniture



NO.660
Wall-Saving Easy Chair

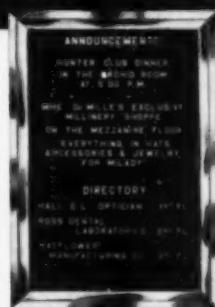
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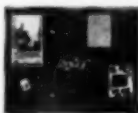
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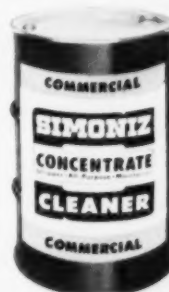


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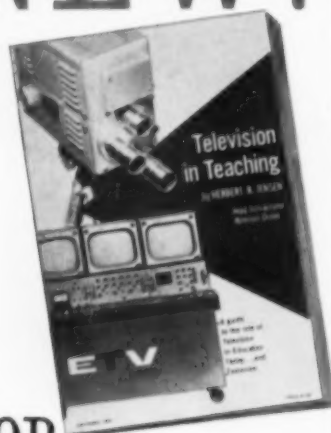
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This valuable 28-page book explores television's unique potential for improving educational productivity and communication efficiency.

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Conqueror Electric Paper Folder Equipped with Automatic Counter

Short or long run folding jobs are done quickly and accurately with the new Conqueror Automatic Paper Folder, Model



EF-1, an electrically driven machine that feeds, folds and counts 110 sheets a minute and deposits them in an adjustable receiver. Featuring simplicity and ease of operation, the unit has only two quick-set controls to adjust, and feeds only one sheet at a time. Heyer Inc., 1850 S. Kostner Ave., Chicago 23.

For more details circle #388 on mailing card.

Handy File

Holds Business Cards

Designed for more efficient handling of business cards which are often misplaced, the E-Z-File for desk-top use has revol-



ving slots for the alphabetical filing of as many as 500 cards. The selector knob on the top of the file is turned to desired letter, then pulled to eject the cards. T & H Industries, 8528 Fishman Rd., Pico Rivera, Calif.

For more details circle #389 on mailing card.

Compact Reach-In Refrigerators In Tyler's "Quality Line"

Available in one, two and three-door models for self-contained or remote installation, the new Tyler "Quality Line" Reach-In Refrigerators and Storage Freezers feature clean, trimline styling, welded-steel construction, space-saving compactness and low operating and upkeep costs.



Units in the line are manufactured with all-metal interior door liners; exterior-mounted heavy-duty hardware, and efficient drainage system. Tyler Refrigeration Corp., 1401 Lake, Niles, Mich.

For more details circle #390 on mailing card.

(Continued on page 128)



THIS CHAIR LEADS 3 LIVES!



The Sensation of
the AASA Show

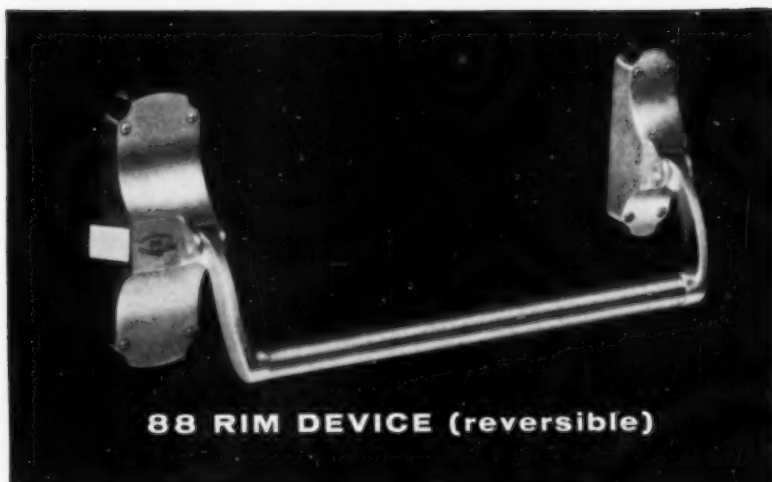
The Clarin Folding Tablet Arm Chair turns any room space into a class, music, audio-visual or study room. It's a desk or a rigid, quiet, comfortable chair as desired. When clear floor space is wanted, it folds flat in one motion, stores in little space.

For more information on Clarin chairs,
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88 RIM DEVICE (reversible)

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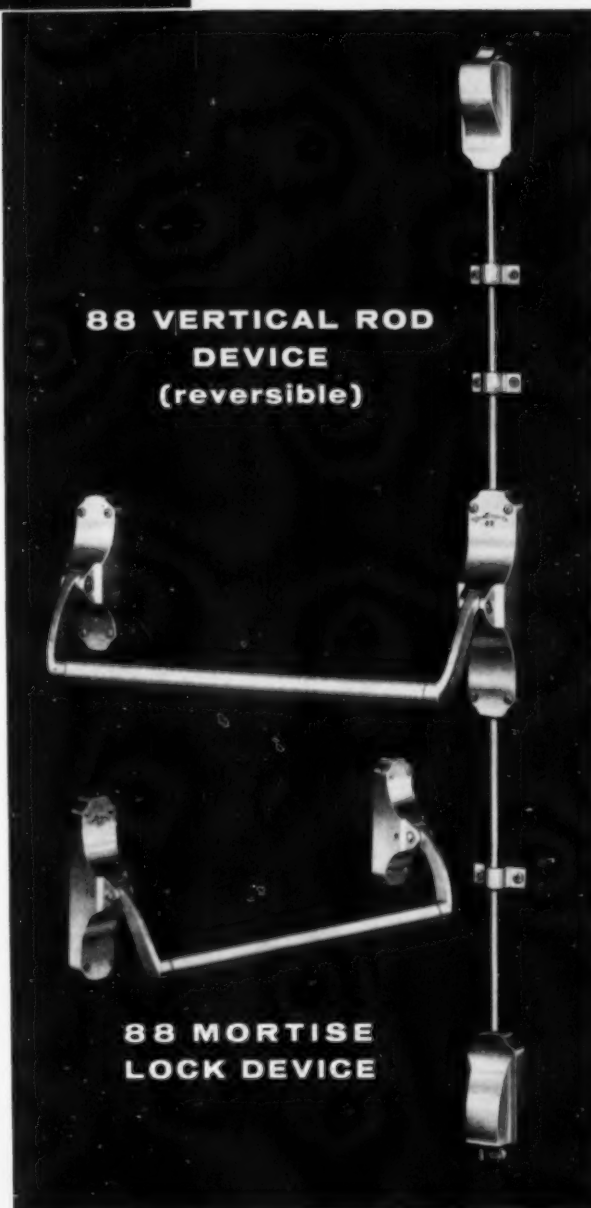


Day after day, year after year of service . . . standby safety in case of emergency: that's the story of Von Duprin exit hardware for schools. With over forty-five years of durable low-maintenance service, Von Duprin quality devices have earned the reputation of preferred exit hardware.



A low-cost, high-quality device, the 88 meets today's demand for fine exit hardware on budget school plans. Lever arms, mortise locks and strikes and standard outside trims are drop-forged bronze or aluminum. All other formed members are pressure or precision castings, or stampings of brass or stainless steel.

VON DUPRIN DIVISION
Vonnegut Hardware Co. • Indianapolis, Indiana



**88 VERTICAL ROD
DEVICE
(reversible)**

**88 MORTISE
LOCK DEVICE**

Gravely Power Barrow Is Self-Dumping

A convenience in grounds maintenance, the Gravely Power Barrow is a self-dumping-



ing unit that attaches to the front of the Gravely Tractor with only four bolts. It can be used for moving rocks, debris

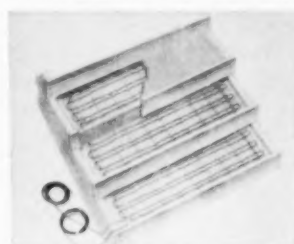
or other bulky items, and dumps easily by raising the handle. The implement hauls up to five cubic feet of material or approximately 800 pounds. Gravely Tractors, Inc., Dunbar, W. Va.

For more details circle #391 on mailing card.

Wiegand Electric Heater Mats Prevent Slipping on Steps

Designed to clear snow and ice from concrete steps and prevent accidents from slipping, Wiegand electric step heater mats eliminate the need for shoveling, salt or cinders. Of Thermwire heating cable interwoven with lightweight galvanized mesh, the heaters are positioned on top of a freshly-poured first layer of concrete,

then covered with a top layer and connected to an inside wall switch. The heaters are available in two and three-step



units and may be used in any combination. Edwin L. Wiegand Co., 7500 Thomas Blvd., Pittsburgh 8, Pa.

For more details circle #392 on mailing card.

Model TSS67
Top-Mounted Reach-In



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STAINLESS STEEL
REFRIGERATORS

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Projection Microscope Has High Power Optical Attachment

Versatility and economy are combined in the Kern-Britex Projection Microscope. The low-cost instrument features simplicity of operation with precision. It contributes to teaching efficiency, saving group time in the study or examination of microscopic



materials due to their projection before the class. Kern Laboratory Supply Co., 2611 Exposition Blvd., Los Angeles 18, Calif.

For more details circle #393 on mailing card.

Stateliner Lounge Chair in Several Sizes

Constructed of chrome-plated one-inch diameter heavy gauge tubular steel with non-tipping, wall saver legs, the new Stateliner Lounge Chair is sturdily constructed for institutional use. It is available in either a single lounge chair, double or triple lounge. Cushions are removable



and reversible, with heavy gauge coil spring construction for comfort and long wear, and have zippered heavy weight elastic-backed plastic upholstery. Suitable for reception rooms, lounge and recreation areas, offices and the like, the new chairs have arm rests of either black plastic or natural lacquered oak with upholstery in a variety of colors. State Industries, 4019 Medford St., Los Angeles 63, Calif.

For more details circle #394 on mailing card.

(Continued on page 130)



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PARKING
PROBLEMS
GIVES YOU
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Booth 12 N.A.E.B. Convention

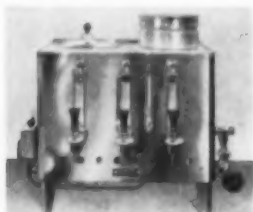
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Twin One Gallon Urn Is Compact Coffeemaker



The "Twin One Compact" Coffeemaker requires only 4.1 cubic feet of space without brewing baskets, or five cubic feet with them. Available in gas, electric or steam models, the urn is a pour-over type that permits brewing fresh coffee fre-

quently, and is inexpensively and easily serviced. **The Continental Coffee Co., 2550 N. Clybourn, Chicago 14.**

For more details circle #395 on mailing card.

Concentrated Liquid Cleaner for Hard Surfaces

In addition to providing maximum cleaning action, Liquid Ben Hur meets the specifications of the Asphalt Tile Institute and Rubber Manufacturers Association. It cleans efficiently without producing excessive foam, thus eliminating baseboard spotting, cleans without stripping wax, picks up easily, and lifts stubborn soil without softening, bleeding or staining hard floor covering. Ben Hur can be used on terrazzo, marble, concrete, vinyl tile, linoleum, sealed wood floors, vinyl-asbestos

tile, steel, painted wood or plastic upholstered furniture, rubber tile, leather, ceramic tile, venetian blinds, porcelain and wall coverings. **Colgate-Palmolive Co., 300 Park Ave., New York 22.**

For more details circle #396 on mailing card.

Molded Plywood Chairs Stack in Minimum Space

Two styles of molded plywood seat and back chairs are offered by Howell. Both stack in minimum space and are attractive and comfortable. Chair No. 223 of walnut woodgrain has a comfortably contoured back and roll front seat with Satin chrome or Bronzite finish on the square tubular frame. The No. 219 companion chair has foam-filled seat and back with basic molded plywood frame. Upholstery in Naugahyde over foam has a protective



welt around the edges. Both chairs have wall-saver legs. **The Howell Co., Div. of Acme Steel Co., St. Charles, Ill.**

For more details circle #397 on mailing card.

Mobile Pantree Rack Carries All Kitchen Utensils

Primarily made for storage, the new Model No. 1 Pantree Rack saves time and effort in storing and acquiring kitchen utensils, while assuring perfect air drying and conserving storage space. The mobile unit permits loading in the dishwashing area of colleges, schools or other institutions, and placement of the rack in the cooking area for ready accessibility of equipment for use. The rack is designed to carry pots, pans, strainers, colanders, stockpots, utensils and kitchen tools on hangers, and roasters, bake pans, sheet pans, trays and dish boxes for silver on shelves. Model No. 1 has three cantilever shelves for flat storage in addition to the solid base. Pots and pans are held on 42 hangers on the outside of the rack while 18 smaller hangers on the inside hold small tools. The heavy plastic coated wire



shelves are adjustable, and four-inch swivel casters make it easy to move. **Pan Tree Rack Co., P.O. Box 4575, Cleveland 24, Ohio.**

For more details circle #398 on mailing card.

PHILCO Closed Circuit TV Systems



**INCREASE
SCOPE AND
EFFECTIVENESS
OF INSTRUCTION**

The high value of closed circuit TV in education has, of course, been recognized for some time . . . meanings are clearer . . . impressions are deeper . . . attention is greater. Instructional TV also allows the great economy of multi-group instruction, and makes specialized teaching talent available to more students.

Philco's broad experience in instructional TV is your assurance of system flexibility, economy and adaptability. Fully transistorized equipment featuring Philco's "building-block" design assures ease of operation, freedom from maintenance problems and the satisfying of expanding TV needs without costly replacement. Philco engineers will be glad to assist you in planning your closed circuit TV system. Write today stating your problems.

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"Tuffy" Hard Plastic Ball For 16-Inch DeLuxe Globes

The "Tuffy" hard plastic globe ball is now used for the 16-inch Cram DeLuxe Hand-made Globe as well as for the 12-inch model. In a specially designed testing machine, the lightweight, durable globe ball was dropped from a height approximating that of a desk 5000 times with no physical damage to ball or map. **George F. Cram Co., 740 E. Washington, Indianapolis 7, Ind.**

For more details circle #399 on mailing card.

Automatic Temperature Control on Food Conveyor

Foods transported from central kitchens to serving areas are kept at the proper temperature in the new Atlas Model HP-1 Food Conveyors with automatic tempera-



ture control. The conveyor has a capacity of 70 quarts and provides a reserve supply of hot foods close to serving counters immediately ready to serve. **Atlas Div., National Cornice Works, 1323 Channing St., Los Angeles 21, Calif.**

For more details circle #400 on mailing card.

Tape Recording Cabinet Has Add-A-Unit Feature

Designed to lock-stack with matching filmstrip library plan cabinets, the new Coffey tape recording cabinet add-a-unit feature makes it practical to add file units as a tape library grows. The steel file drawer holds up to 84 five-inch or 60 seven-inch reels in their original cartons and has three adjustable filing rows. Also practical for the storage of motion picture film, the cabinet is finished in hammerloid gray with four index tabs and one drawer pull. **Jack C. Coffey Co., Inc., 710 17th St., North Chicago, Ill.**

For more details circle #401 on mailing card.

Colorful Tulip Design in Lily-Tulip Paper Service



Combining attractive design with assured sanitation and disposability, Lily-Tulip introduces the Tulip Design in its line of matched place setting paper food service. The dominant design motif is a

stylized tulip and the color combines blue and green against bone white. Designed to harmonize with every decor, modern as well as traditional, the Tulip Design comes in a size and shape to meet every serving need and includes place mats, creamers, hot and cold cups, plates, both plastic-coated and uncoated, Lily's China-Cote Service Cup, a disposable water pitcher, food containers and portion cups. **Lily-Tulip Cup Corp., 122 E. 42nd St., New York 17.**

For more details circle #402 on mailing card.

Double Seating Chair Has Wall-Saving Design

Loveseat 8256, designed for lounge and reception areas, features wall-saving construction with back posts and slots of

northern hard maple which are steam bent for durability. The seat and back are



upholstered in attractive modern covers over foam rubber, and the frame is available in a wide selection of wood finishes. **American Chair Co., 911 N. 9th St., Sheboygan, Wis.**

For more details circle #403 on mailing card.

(Continued on page 132)

NO SNAG!

Exclusive plastic Protecto-Caps prevent rail ends from tearing bedding and linens.

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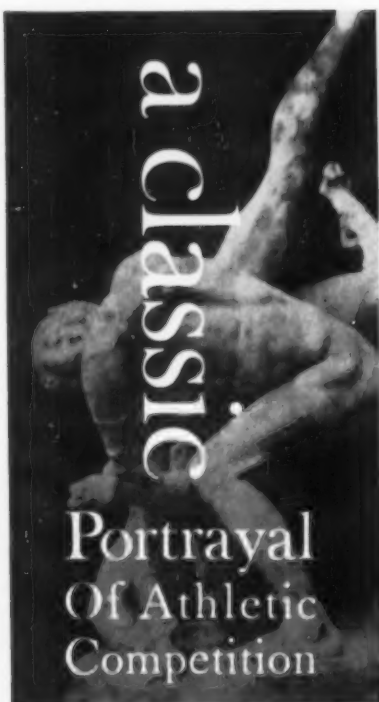
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Coordinator Business Desk Permits Variety of Instruction

Developed to duplicate actual office working conditions and allow a wide variety of training to cover the many phases of modern business education instruction, the new Coordinator desk permits either left or right hand assembly for maximum flexibility in utilization of floor area. It



has an all-steel supporting base with leg and rail designed for positive rigidity. The bi-level top permits adjustment to proper working heights for either typing or clerical operations. Edges and corners are rounded and the high pressure plastic laminate top protects against damage. Toledo Metal Furniture Co., 2000 Hastings St., Toledo 7, Ohio.

For more details circle #404 on mailing card.

Trapezoid Water Cooler Has Space-Saving Design

The unique, space-saving trapezoid shape of the General Electric wall and floor model water coolers permits drinking from either side as well as the front. Mounted flush to the wall for additional



space saving, the unit has completely enclosed components, hiding pipes or valves from view, and is available with a carafe-filler accessory for cafeteria use. General Electric Co., Commercial Equipment Dept., 14th & Arnold Sts., Chicago Heights, Ill.

For more details circle #405 on mailing card.

Criterion Food Equipment Features Low-Cost Installation



Built-in electrical raceways, simplified drain connections and utility "space-way" permit convenient placement of the units in the complete Criterion food service equipment line. The design allows plumbing, electric and refrigerant field connec-

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tions to be made later without disturbing the equipment line-up. The result of years of intensive design research and engineering, the new line features dramatic styling, rugged lifetime construction with quality materials, and ease of maintenance. Stanley Knight Corp., 3430 N. Pulaski Rd., Chicago 41.

For more details circle #406 on mailing card.



Frozen Turkey Roll for Portion Control

A new frozen turkey roll is now available for simplified handling and portion control. The fully cooked and quickly frozen rolls, weighing nine pounds each, save time and waste in handling and reduce storage and cooking space to a minimum. Rolls are available with all white meat, all dark meat, or a combination of both. Swift & Co., Union Stock Yards, Chicago 9.

For more details circle #407 on mailing card.
(Continued on page 134)

All-purpose liquid detergent

Mop it on...



Cindet

Let Cindet suds lift the dirt for you

CINET does more cleaning with less effort and less material; works in hard or soft water.

CINET outstrips them all as a wax stripper. Cleans walls, woodwork, tile, porcelain, glass, metal.

CINET does a cleaner job—cuts labor costs: Mop it on, walk away, come back and pick it up.

CINET does the job with no drag because dirt particles shatter, lift and ride high.

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SIPCOSMOKERS are constructed of heavy-duty cast aluminum—Built for a lifetime of hard use. OVER 20 DIFFERENT MODELS, include MIDGET size, STANDARD size and JUMBO size. WALL models, FLOOR STAND models and PERMANENT MOUNTING models. DELUXE bright polished finish—or DUO-TONE finish (Grey crinkle canister with satin finished lid.)

MODEL 4J DELUXE (Illustrated) JUMBO size permanent mounting type with bright polished DELUXE finish. Glass fiber inner-liner is furnished.

MODEL 4J-R DUO-TONE (Illustrated) JUMBO size permanent mounting type, with sign. Wide variety of sign wording available. Glass fiber inner-liner furnished.

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Deluxe



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Chairs
can take it!**

**STURDY FOLDING CHAIRS
... LAST YEARS LONGER**



No. 76

Tubular steel frame, with free-free construction.

Extra wide steel seat and back, comfort-contoured.

All metal edges completely beaded for extra strength and safety.

Chairs also available with tablet arm, steel, padded, wood or foam rubber seat.

Hampden offers the finest quality style and value for every adult and juvenile public seating need—and in every price range.

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Hampden

Manufacturers of:
PUBLIC SEATING • OUTDOOR AND JUVENILE FURNITURE • BRIDGE SETS

Colored Neoprene Balls Permit Precise Stereochemical Models

The Cenco-Petersen Molecular Model features elastic atoms permitting construc-



tion of models with or without strain distortion, true-to-scale bond lengths and angles for accurate predictions of interatomic distances and bond angle distor-

tions, and bond linkage for either rotating or rigid connections. A more precise picture of stereochemical relationships is possible with the new model, which consists of 59 flexible neoprene atoms and 55 rigid polystyrene monovalent atoms, plus the bonds and fittings. **Central Scientific Co., 1700 Irving Park Rd., Chicago 13.**

For more details circle #403 on mailing card.

Silv-O-Tainer Line Of Marlex Plastic

Marlex, a virtually indestructible plastic, is employed in the new Silv-O-Tainer line of equipment designed for the efficient, sanitary handling of flatware. Basket-type cylinder holders are light weight, easy to handle and keep clean and attrac-

tive in appearance for use in dining rooms and cafeterias. A rack that can support 300 pounds is available in counter-top and



under-counter styles. **Bloomfield Industries, Inc., 4540 W. 47th St., Chicago 32.**

For more details circle #409 on mailing card.

Choose APSCO

for your Classroom and Office Requirements!

Apsco "2100" STAPLER

For teacher's desk, or for the school office, this stream-lined beauty will staple, pin or tack those forms, examinations, and construction papers. Jamming absolutely eliminated. This top-loading stapler takes a 210 strip of staples and can be used as a plier as well as stapler.

Apsco 3-Hole PUNCH

Also available in 2-hole model. These rugged Apsco Punches feature case-hardened punch drills which punch perfect holes in up to 30 sheets of paper. Teacher can use these models to a good advantage and, of course, no school office can function without them.

Apsco "CHICAGO" PENCIL SHARPENER

World's finest economy pencil sharpener. For those school purchasing budgets that are already strained, here is a pencil sharpener that has all of the high-quality features of the more expensive sharpeners, but is priced well within the usual price ranges. This features the strong new Apsco #145 Base, positive point stop, and long-life replaceable cutterhead. Every classroom can use this rugged beauty.

Apsco "Pincher Type" STAPLE REMOVER

Every teacher will welcome this Apsco Staple Remover to save wear and tear on fingernails. With more and more school material being stapled prior to delivery, the teacher will find this Staple Remover a time-saver. Case-hardened jaws for greater strength means that this American-made instrument will last for years. Your School Distributor has them in stock.

Specify Apsco products for YOUR school - there are none better! Write for complete Apsco catalog, free on request.

APSCO PRODUCTS, INC.
P.O. Box 840, Beverly Hills, California
Dept. 16-4

Apsco

Heller "Magazine Minder" Rack Has Hard Lacquer Finish

Suited for use in libraries, lounges and other areas where a supply of magazines must be kept available, the new "Magazine Minder" rack can display twenty-two or more magazines at a convenient height.

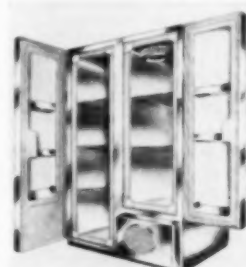


The unit features a hard lacquer finished surface highly resistant to marking or scuffing, and is available in either oak or birch. **W. C. Heller & Co., Montpelier, Ohio.**

For more details circle #410 on mailing card.

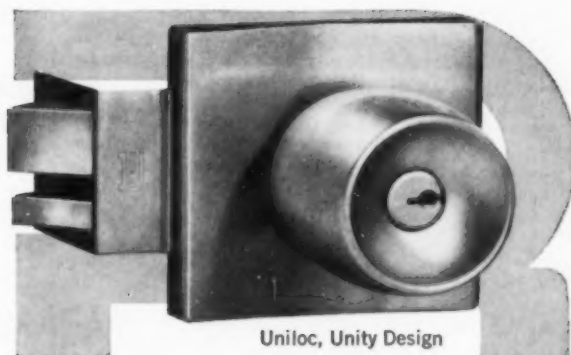
Silco Refrigerator Line Features Door Shelves

A complete new line of Silco refrigerators and freezers for institutional use is introduced by Silver Refrigeration. Two special features are the space-saving door shelves and a streamlined blower coil which also saves space. Up to 30 per cent increase in storage space without added overall dimensions is provided in both



refrigerators and upright freezer models. The new blower coil features the Silco circular design for maximum air circulation efficiency. **Silver Refrigeration Mfg. Corp., 1469 Utica Ave., Brooklyn 34, N.Y.**

For more details circle #411 on mailing card.
(Continued on page 136)



Uniloc, Unity Design



Stilemaker Cylindrical
Lock, Mono Design

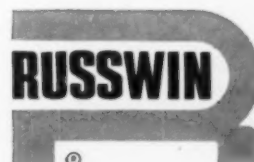


"Ten-Strike"
Mortise Lock,
Modera Design

the three
"R"s

that make it easy for you to choose the
right lock for any college building!

Whatever the building . . . whatever the budget . . . look to Russwin for your doorware! Three rugged locksets to choose from . . . each available in a wide choice of designs, finishes, functions. Call your Russwin supplier. Or write Russell & Erwin Division, The American Hardware Corporation, New Britain, Connecticut.





The Insured TUITION PAYMENT PLAN

This is the prepayment plan that brings the parent low-cost life and disability insurance protection, plus a monthly budget provision that extends to the final month of his educational expenses four or more years hence. Used today in many of the best-known colleges and preparatory schools, it has proven most valuable to administrative officers by providing them with a dignified, parent approved method which:

- 1 alerts parents to their financial obligation when the student is accepted for admission;
- 2 offers parents a convenient and logical plan for meeting that obligation;
- 3 assures the parent (and thus the college) that he will have adequate funds with which to meet his college obligations in full and on time;
- 4 preserves the traditional relationship between the college and the parent—debt-free and direct.

Individualized descriptive literature for mailing to the parents of incoming students is furnished in each preparatory school, college or university.

WRITE TODAY FOR DETAILS

We should like to know more about the Insured Tuition Payment Plan as it would apply to the student at:

Name of School or College _____

Address _____
Please contact: _____

Name _____

Title _____

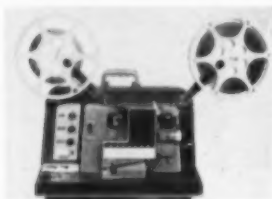
RICHARD C. KNIGHT

INSURANCE AGENCY, INC.
Insured Tuition Payment Plan

38 Newbury Street
Boston 16, Mass.

Low-Voltage Projection Lamp Gives High Screen Brilliance

A newly developed high efficiency, low voltage 250-watt lamp in the Galaxy 16mm Sound Projector uses a "dichroic" reflector for screen brilliance comparable to a 1200-watt lamp using the condenser-reflector system. Maintenance is simplified



and economy of operation improved with the lamp, which generates less heat, uses a small, quiet cooling system and has long life. The Galaxy projector has high fidelity sound through its printed circuit, advanced transistor photo-cell, built-in amplifier and acoustically engineered speakers built into the cover. **Graflex, Inc., 3750 Monroe Ave., Rochester 3, N.Y.**

For more details circle #412 on mailing card.

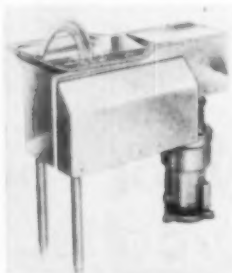
"Tonecrete" Decorative Coating Is Fire Resistant and Durable

Highly fire-resistant, "Tonecrete" is an inorganic coating which does not suffer from the deteriorating effects of oxidation and weather exposure. It is durable and decorative and forms a continuous, unbroken film over any number of base surfaces. It is designed for both interior and exterior application and may be applied over most materials, including pre-fabricated steel buildings, metal roof decking and siding. It is available in a wide range of colors and textures. **Desco Vitro-Glaze Assn. of America, Box 74, Buffalo, N.Y.**

For more details circle #413 on mailing card.

Heavy-Load Operation With All-Purpose Scrap-Master

A large water-scrub-trough allows two or more operators to work at the same time, permitting both high-speed and heavy-load operation with the new, all-purpose Salvajor Scrap-Master water scrapping machine. Food waste is flushed



away from soiled dishes and trays under a heavy plume of warm re-circulated water which carries it to the heavy-duty grinder for shredding. Even bones and cartons are disposed of in the grinder, and salvage basin traps tableware accidentally dropped in the machine. **Salvajor Co., 7235 Central, Kansas City 14, Mo.**

For more details circle #414 on mailing card.

(Continued on page 137)

Easy Way to LOWER Maintenance Costs



Listed under
Re-examination
Service
Underwriters'
Laboratories, Inc.

Do your maintenance costs keep going up and up? Bring them down with Baker Scaffolds! They set up fast, transport easily . . . go through doorways, around sharp corners, move over desks, chairs, benches, etc. without extra work.

Platforms adjust for height in 3-inch increments so workmen can be at the correct height. Stairways and uneven surfaces are no problem—the platforms are level. You can easily save the cost of a Baker Scaffold in a short time.

Write today for more complete information on the Baker Scaffold for portability and fast set-up or . . . the Model K for larger platform areas and greater heights.

BAKER SCAFFOLDS

DESIGNED FOR PORTABILITY • BUILT FOR DURABILITY

BAKER-ROOS, INC.

P. O. Box 892, Dept. 611 Indianapolis 6, Ind.
DISTRIBUTORS IN PRINCIPAL CITIES

Literature and Services

• "Comfort Conditioning With Light and Air" is the title of a 24-page catalog (F 9768) containing complete information on combination light and air diffusers. Briefly stating the history and evolution of lighting and air distribution, the booklet, prepared by the Barber-Colman Co., 1300 Rock St., Rockford, Ill., and Day-Brite Lighting, Inc., 6260 N. Broadway, St. Louis 15, Mo., includes drawings illustrating how the new combination light and air diffusers are installed and balanced.

For more details circle #415 on mailing card.

• "Better Systems For Better Schools" is the title of a booklet prepared by Acme Visible Records, Inc., Crozet, Va. It describes and illustrates long-range record systems covering pupils, personnel, property and all kinds of administrative responsibility from kindergarten through college, and shows the size and style of filing equipment available.

For more details circle #416 on mailing card.

• "Curriculum Materials Center," Pamphlet No. T-12, "Planningboards," No. T-21, and "Illuminator for Slide Sequences," No. T-20, are three new booklets available from Eastman Kodak Co., 343 State St., Rochester 4, N.Y., offering audio-visual directors concrete suggestions on technics and tools.

For more details circle #417 on mailing card.

• Presenting comprehensive information on the application of high pressure decorative laminates, the **Panelyte Technical Data Brochure** is offered as an aid in design and specification work by St. Regis Paper Co., Panelyte Div., 150 E. 42nd St., New York 17.

For more details circle #418 on mailing card.

• Feature and specification data on approximately twelve different styles of fire hose available for protection in institutional buildings are provided in **Bulletin No. S-230** offered by The Fyr-Fyter Co., 221 Crane St., Dayton 1, Ohio.

For more details circle #419 on mailing card.

• How to make money with a popcorn project, how to start, finance, and operate it, and the nutritional values of popcorn are some of the subjects covered in a bulletin entitled "**Popcorn Belongs**" offered by Gold Medal Products Co., 318 E. 3rd St., Cincinnati 2, Ohio.

For more details circle #420 on mailing card.

• Wassell "Work Organizers" are the subject of an informative booklet on Corres-Files, Rotor-Files and Rotor-File Desks manufactured by the Wassell Organization, Inc., Westport, Conn. The 32-page brochure presents the 1960-61 line of horizontal rotary files and rotary-file desks with five pages of office floor plans.

For more details circle #421 on mailing card.

• A 24-page manual that deals with TV systems for institutions, entitled "**Designing and Installing Master TV Systems**," is useful for the servicing and maintenance of the systems as well. Available from Blonder-Tongue Laboratories, Inc., 9 Alling St., Newark 2, N.J., the book contains charts, tables and a glossary of Master TV terms.

For more details circle #422 on mailing card.

• "Public Seating by Hampden" is the title of a 17-page catalog containing full information on the Titan and Gibraltar seating lines manufactured by Hampden Specialty Products Corp., Easthampton, Mass.

For more details circle #423 on mailing card.

• A 12-page booklet entitled "**Practical Guide to Specification, Selection and Use of Vinyl Wallcoverings**" is described as the first publication of its kind for administrators, architects and decorators. Available from L. E. Carpenter & Co., Inc., Empire State Bldg., New York 1, the booklet presents fundamental information, including suggestions for installing vinyl wallcoverings directly over structural block.

For more details circle #424 on mailing card.

• The electronic training equipment developed by Radio Corporation of America, Camden 2, N.J., is described in a new brochure entitled "**RCA Electronic Trainer**." Developed for teaching electronics through a combination of theory and practical experiments, the Instructor Demonstrator and Student Equipment are discussed and fully illustrated in the 12-page booklet.

For more details circle #425 on mailing card.

• A handbook entitled "**Judging Engine Quality**" emphasizes the features of various designs which provide top performance at minimum cost. Available from Caterpillar Tractor Co., Engine Div., Peoria 8, Ill., the 28-page pamphlet includes cutaway illustrations and charts.

For more details circle #426 on mailing card.



Corner Cabinet Style

Styled to your needs and built to last... Bed Frames by SENG

Seng bed frames are designed and built for easy cleaning and low maintenance, ruggedness and long-term economy. The many styles available are adapted to varied applications and help create smart, practical room arrangements. They take extra-length bedding; move easily on large casters or non-marking Nylon glides.

Standard single and twin beds in addition to the styles shown. Pre-packaged accessories.

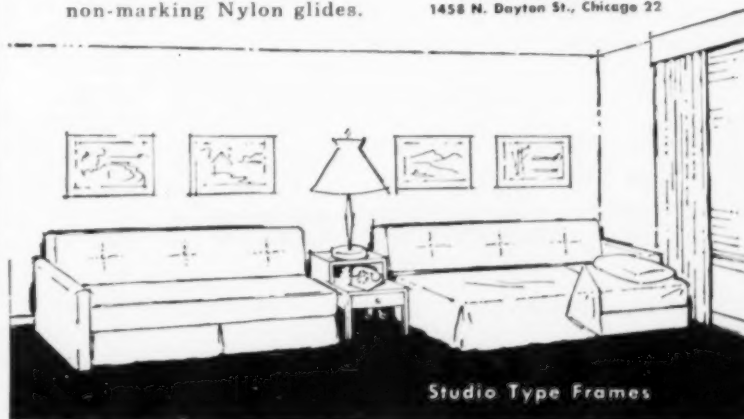
Ask your contract supplier about Seng Bed Frames or write us for institutional literature.

THE SENG COMPANY

CHICAGO AND LOS ANGELES

General Office:

1458 N. Dayton St., Chicago 22



Studio Type Frames

• The Shure General Catalog No. 60A of Microphones and Electronic Components is a 28-page booklet presenting specifications and prices of 30 microphone models, microphone accessories, magnetic recording heads and other equipment. Available from Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Ill., the catalog covers the full line of sound equipment.

For more details circle #427 on mailing card.

• Bulletin R88 on the COSS Automatic Coffee Brewer/Server, available from Groen Mfg. Co., 1900 Pratt Blvd., Elk Grove Village, Ill., includes photographs of the 36-inch counter-high stainless steel unit in use as part of the cafeteria line and a cut-away back view showing the working parts.

For more details circle #428 on mailing card.

• The complete line of Hobart Food Machines is described and illustrated, with individual features of each, in a 56-page booklet available from The Hobart Mfg. Co., Troy, Ohio.

For more details circle #429 on mailing card.

• Several new films and recordings have been developed by the Bell Telephone Labs., 463 West St., New York 14, as aids to science education. They are available through local Bell Telephone Co. offices and include motion pictures: "Crystals: An Introduction" and "Brattain on Semiconductor Physics;" filmstrips: "Zone Melting" and "The Formation of Ferromagnetic Domains," and an album of 33 1/3 rpm records on "The Science of Sound."

For more details circle #430 on mailing card.

• A complete new 20-page catalog of the full line of rolled, figured and wired glass manufactured by Mississippi Glass Co., 88 Agelica St., St. Louis 7, Mo., is now available from Department 15 of the company. Catalog 61-G includes photographs of individual patterns with light distribution charts and transmission data.

For more details circle #431 on mailing card.

• School-Quip Educator Designed School Furniture is the subject of a four-page illustrated folder listing chairs, desks and combination units in the School-Quip line manufactured by Yard-Man, Inc., School-Quip Div., 1410 W. Ganson St., Jackson, Mich.

For more details circle #432 on mailing card.

• A comprehensive catalog of 1960-61 Filmstrips available from McGraw-Hill Text-Films, 330 W. 42nd St., New York 36, presents descriptive information on filmstrips for grades, high school, and college and adult groups.

For more details circle #433 on mailing card.

• The full line of mechanical and electrically operated bleachers, gymnasium seats and folding chair stands manufactured by Berlin Chapman Co., Bleacher Div., Berlin, Wis., is illustrated and described in a new four-page folder.

For more details circle #434 on mailing card.

• "How to Use Direct-Wire TV As a Low-Cost Educational Tool" is the title of a brochure offered by Argus Cameras, Inc., subsidiary of Sylvania Electric Products Inc., Ann Arbor, Mich. The educational uses of direct-wire TV include social studies, science, speech and drama, and language classes. In addition to advice on such subjects as team teaching, teacher training and non-academic uses for hall and yard monitoring, handling overflow audiences and the like, the booklet describes how a school can begin to use direct-wire TV with a minimum investment of \$595.

For more details circle #435 on mailing card.

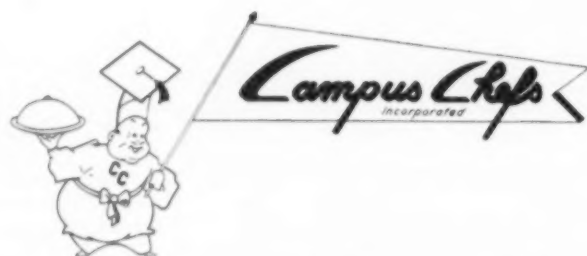
Suppliers' News

Da-Lite Screen Co., Warsaw, Ind., manufacturer of projection screens, announces that the Underwriters Laboratory label of endorsement will now appear on all Da-Lite Electrol Senior Projection Screens for wall and ceiling installation.

LaPine Scientific Co. is the new corporate name of Arthur S. LaPine & Co., 6001 S. Knox Ave., Chicago 29, manufacturer and distributor of laboratory equipment and supplies.

Medart Lockers, Inc., 4427 Geraldine Ave., St. Louis 15, Mo., announces purchase of the Telescopic Gym Seat and Basketball Backstop business of Fred Medart Products, Inc., St. Louis. The corporate name of Medart Lockers is changed to Medart Products, Inc., to cover the broadened activities in the school field.

E. R. Moore Co., 932 W. Dakin St., Chicago 13, manufacturer of caps and gowns, choir robes and gymwear, announces the opening of a new production facility in Osceola, Ark. The new 30,000 square foot plant will manufacture the entire line and is established to better serve the needs of the Southwest.



When it comes to the
food service budget — —

PENNY WISE IS DOLLAR WISE

Just one penny saved on each meal served can mean thousands of dollars a year to you.

CAMPUS CHEFS can save these pennies for you, without sacrificing quality of food or menu variety.

CAMPUS CHEFS offers complete professional management of your food service — relieves you of all responsibility for the operation, yet is guided by your policies at all times.

Let us plan a management program for you. Write or phone today.

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Incorporated

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INDEX TO ADVERTISEMENTS

USE THIS PAGE TO REQUEST PRODUCT INFORMATION

The index on this and the following page lists advertisements in this magazine alphabetically by manufacturer. For additional information about any product or service advertised, circle the manufacturer's key number on the detachable postcard and mail it. No postage is required.

Products described in the "What's New" pages of this magazine also have key numbers which appear in each instance following the description of the item. For more information about these items, circle the appropriate numbers on the postcard and mail it, without postage, to College & University Business.

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I am interested in the items circled—

April, 1961

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FIRST CLASS
PERMIT NO. 136
CHICAGO, ILL.



Pass the cracker basket, please!



THE BEST FOOD DESERVES THE FINEST CRACKERS

Here are the most popular crackers in all America . . . NABISCO. When your customers see an assortment of NABISCO Individual Service Packets in a big, friendly cracker basket, they know that you know how to please their taste and appetite. NABISCO'S Individual Service Packets offer top quality products, always delivered fresh from our ovens to you and kept fresh in attractive moistureproof cellophane packets. Easy, economical to serve, cuts food cost—no waste of time, no waste of crackers. Just over a penny per serving! ®

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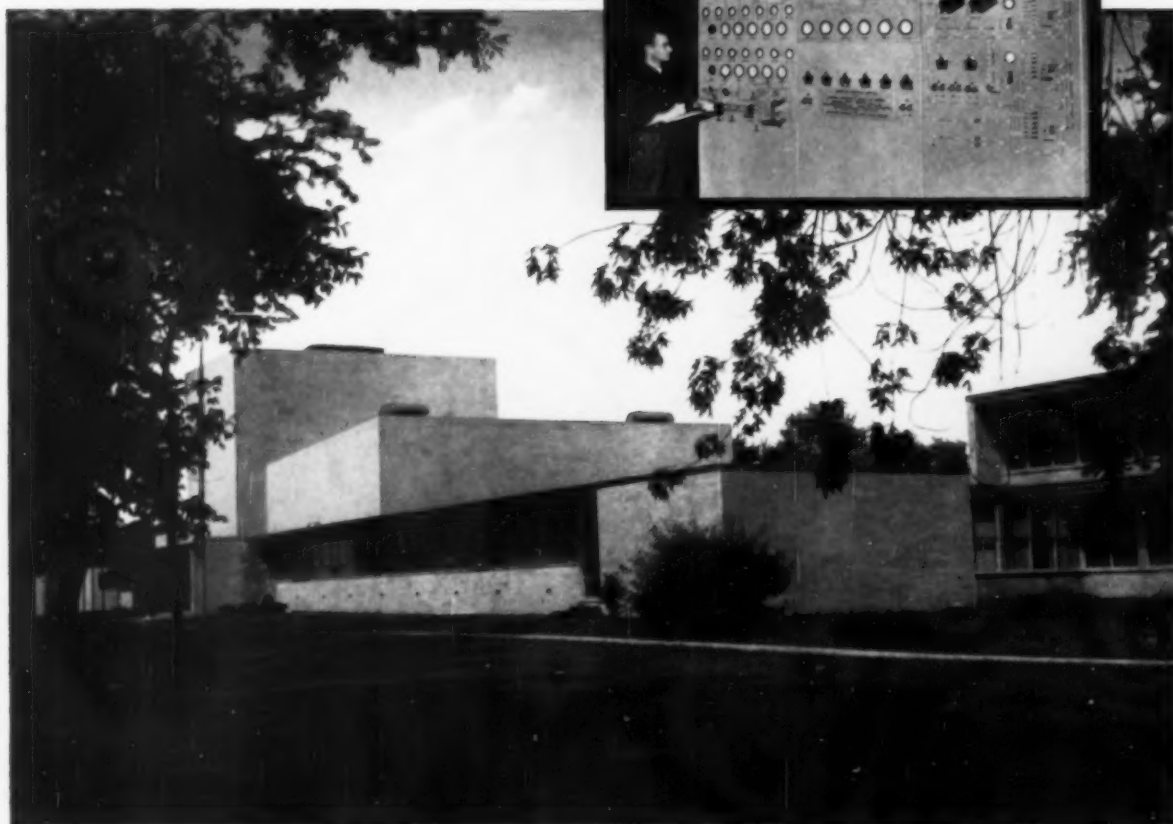
Name Title

Organization

Address

City Zone State

Editorial Department
University Microfilms
313 N. First St.
Ann Arbor 13, Mich.



Advance planning trims outlay for future air conditioning

Indiana University's Adult Education Center in Gary is an especially good example of how a Johnson Pneumatic Temperature Control System helps minimize both present and future comfort costs.

Throughout the building, Johnson *Dual* Thermostats provide *individual room* temperature and ventilation control and prevent costly overheating and fuel waste. They also assure flexibility in handling after-hours heating problems. With *Dual* Thermostats, only the rooms *in use* are maintained at comfort levels, while the thermostats in unoccupied rooms are reset to maintain low, economy temperatures. Additional time and operational savings are made possible by a Johnson Pneumatic Control Center which permits centralized supervision and control of the over-all operation.

Complete year 'round air conditioning of this modern building is planned eventually. This is to be accomplished simply by adding mechanical refrigeration and using the existing heating and ventilating systems. Similarly, the same Johnson System, from the ther-

mostats on the walls to the control center, will be utilized. These features required exclusively for air conditioning were anticipated and incorporated at minimum cost into the original control installation.

Thrifty advance planning, plus dependable, trouble-free performance over the years, enables Johnson to provide the finest in modern comfort control at a lifetime cost that can't be matched by other types of control. When you build or air condition, get the facts from your architect, consulting engineer, or Johnson representative. Johnson Service Company, Milwaukee 1, Wisconsin. 105 Direct Branch Offices.

JOHNSON CONTROL

PNEUMATIC  SYSTEMS

DESIGN • MANUFACTURE • INSTALLATION • SINCE 1885

